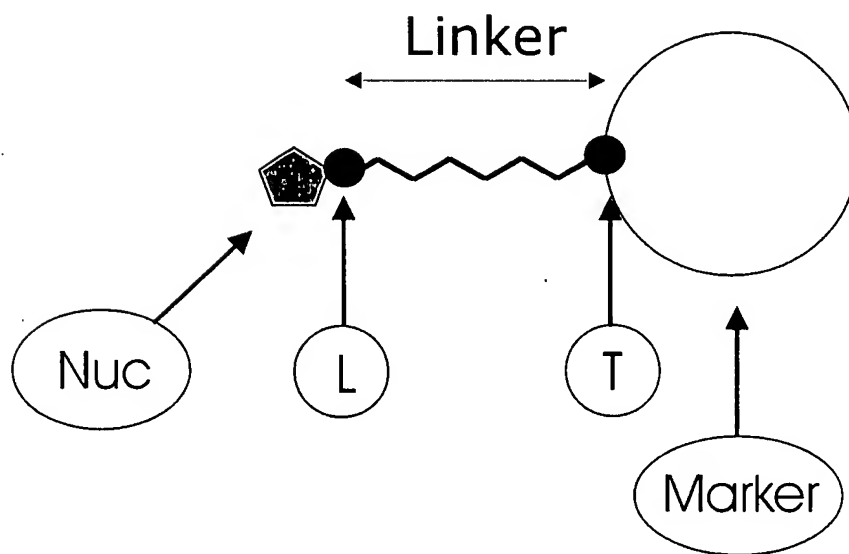


Fig. 1



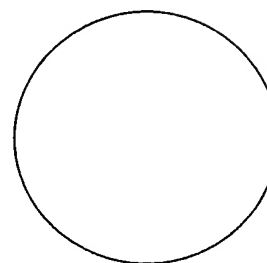
Legend:



Nuc-component

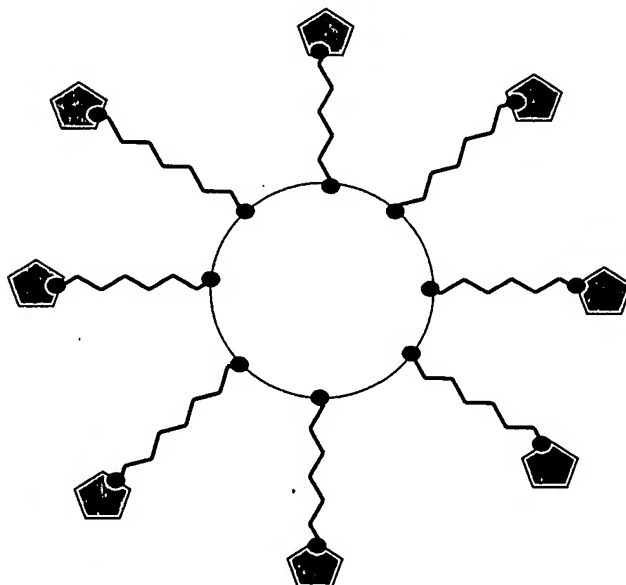


Linker component



Marker component

Fig. 2



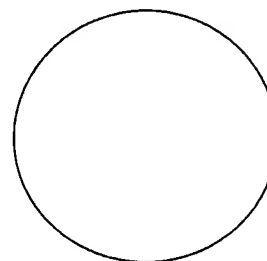
Legend:



Nuc-component



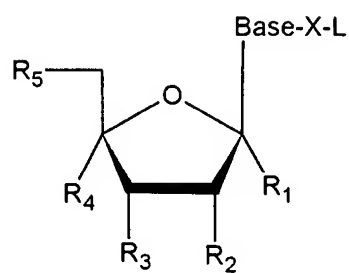
Linker component



Marker component

Fig. 3

A)



B)

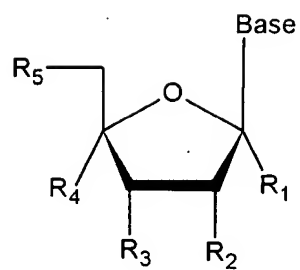
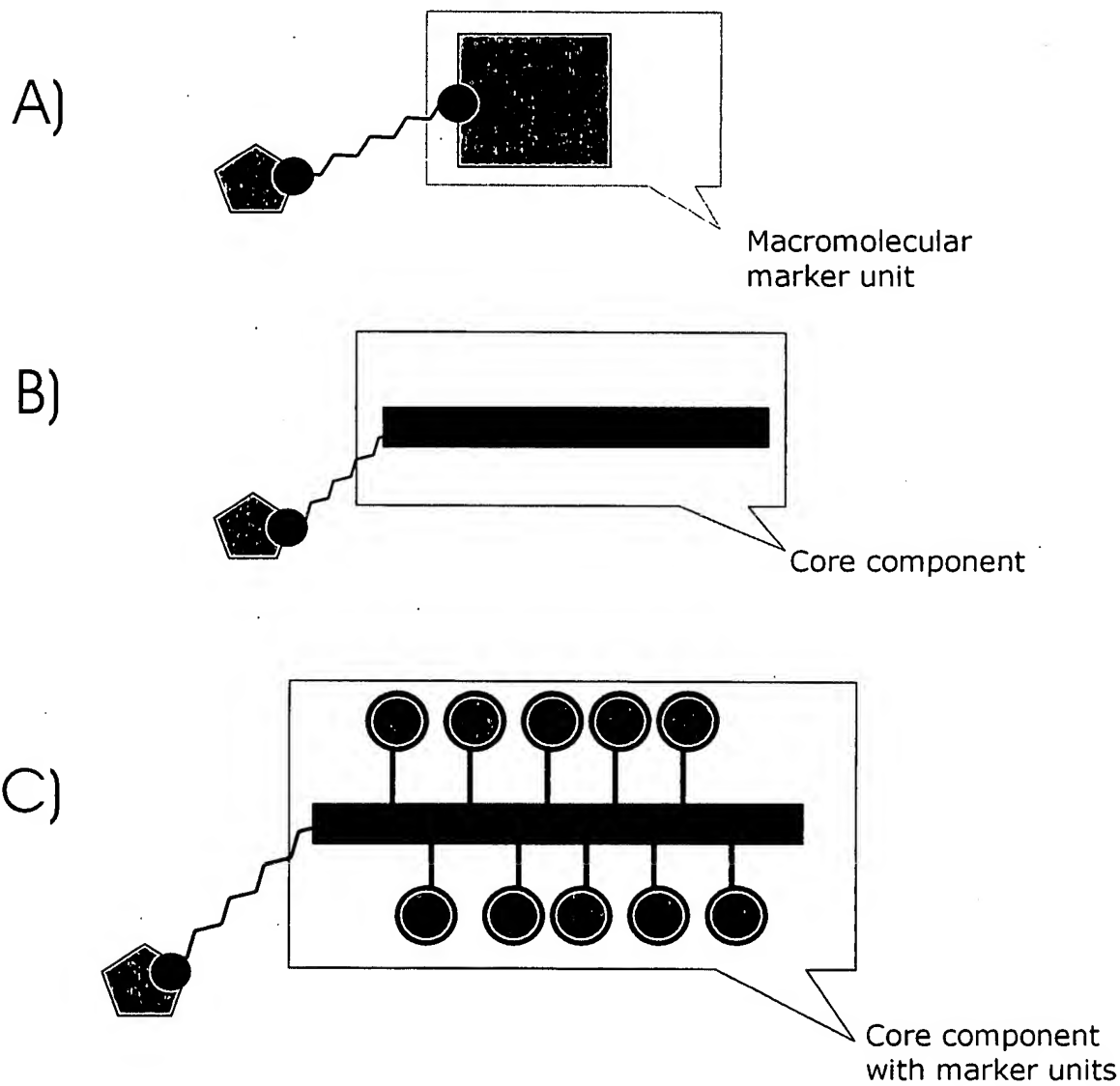


Fig. 4



Legend:

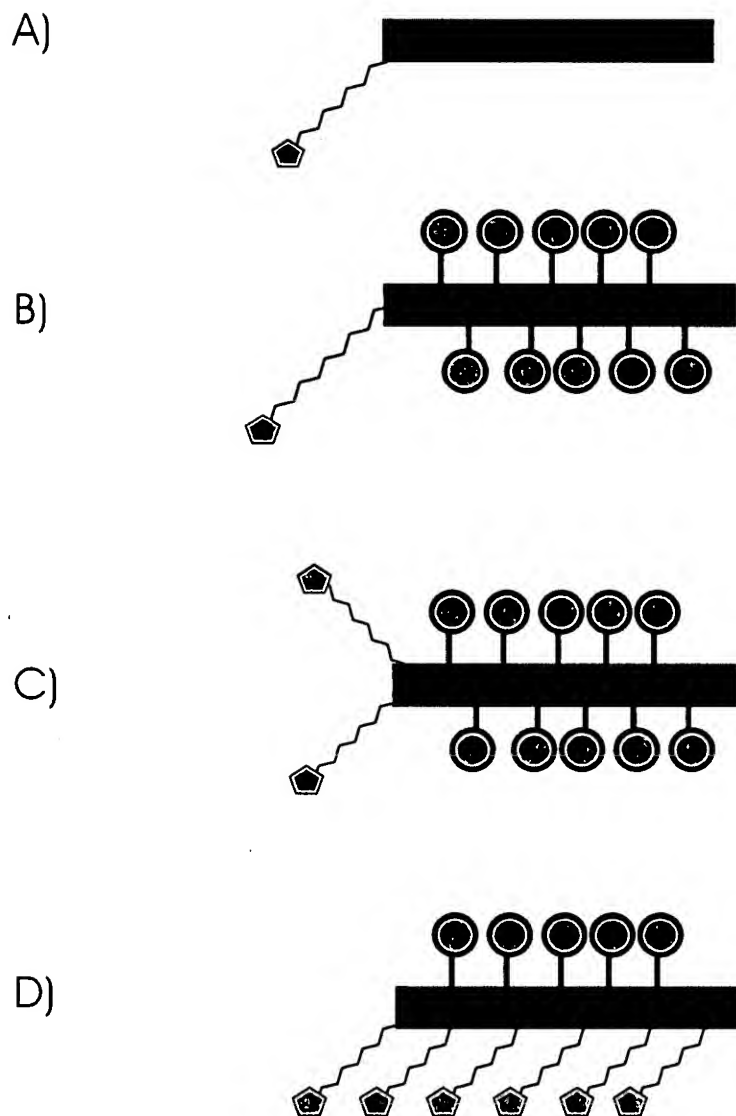


Nuc-component



Linker component

Fig. 5



Legend:



Nuc-component



Linker component



Core component

Marker unit
with a linker

Fig. 6

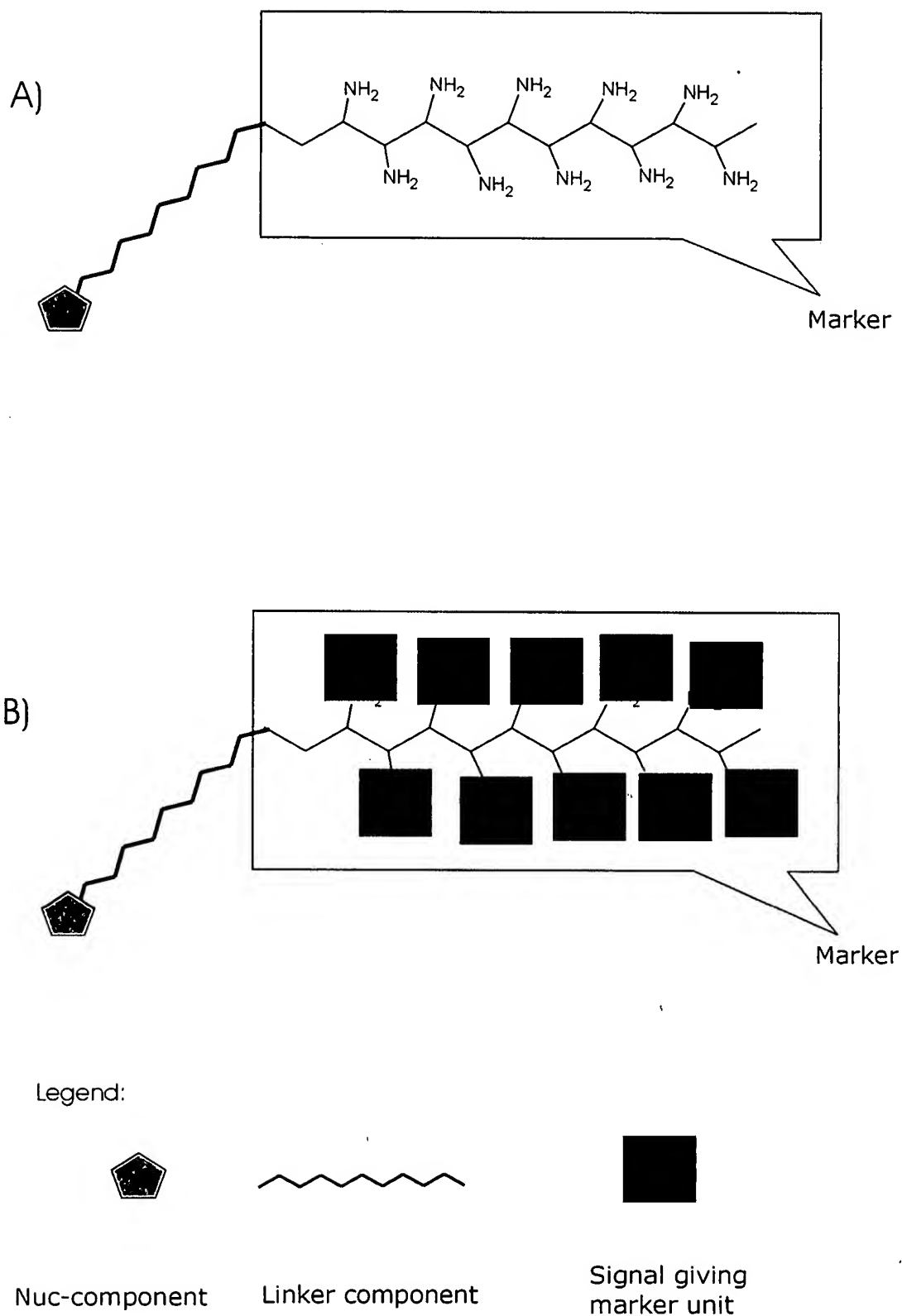


Fig. 7

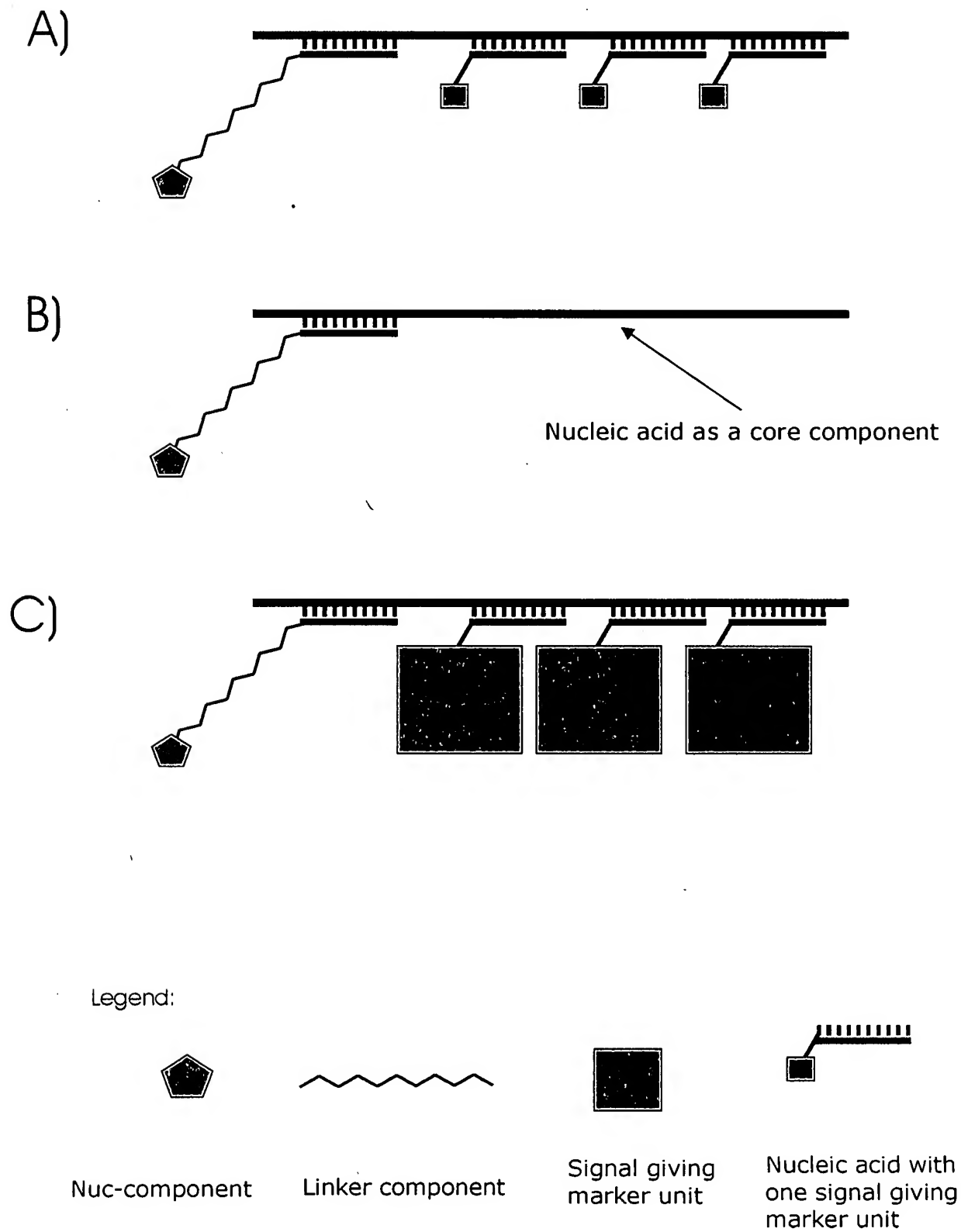
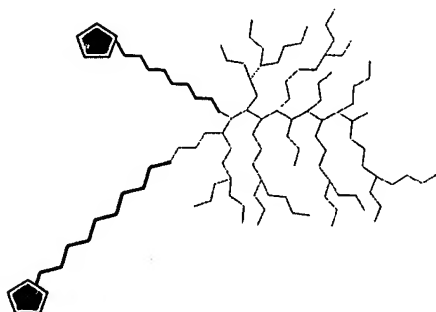
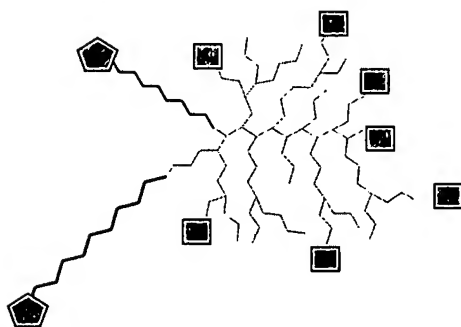


Fig. 8

A)



B)



Legend:



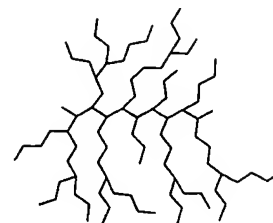
Nuc-component



Linker component

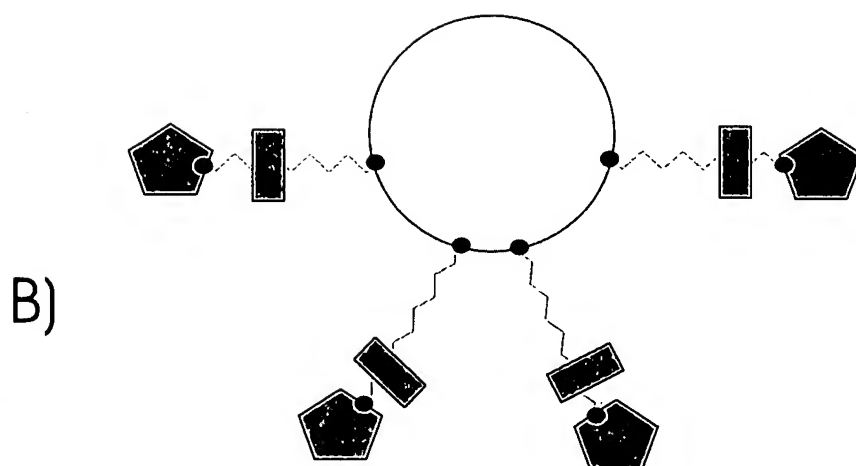
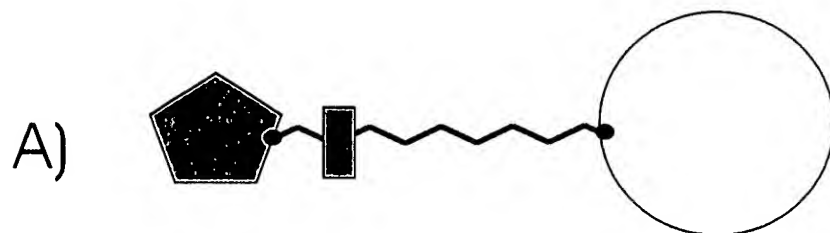


Signal giving
marker unit



Branched polymer
as a core component
e.g. Dendrimer

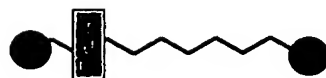
Fig. 9



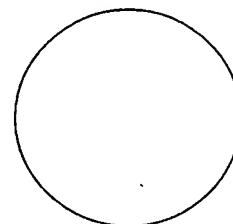
Legend:



Nuc-component



Linker component
with a cleavable
compound



Marker component

Fig. 10

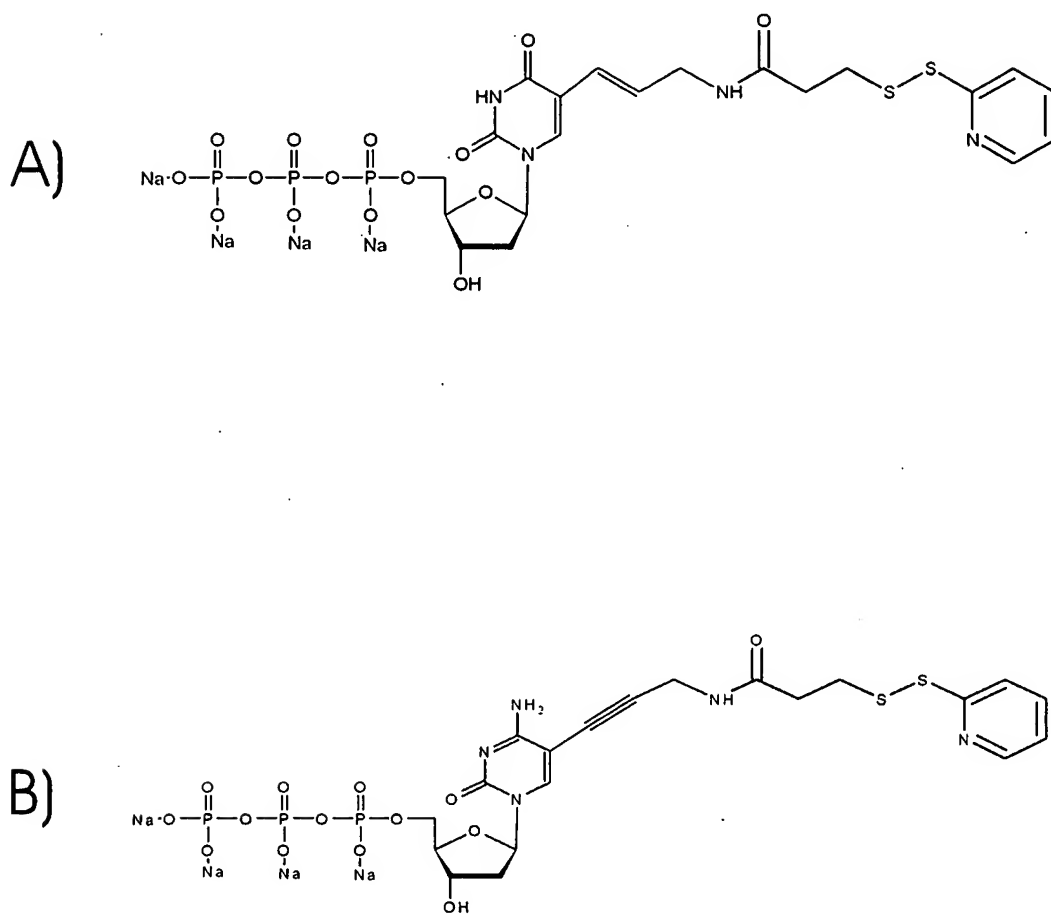


Fig. 11

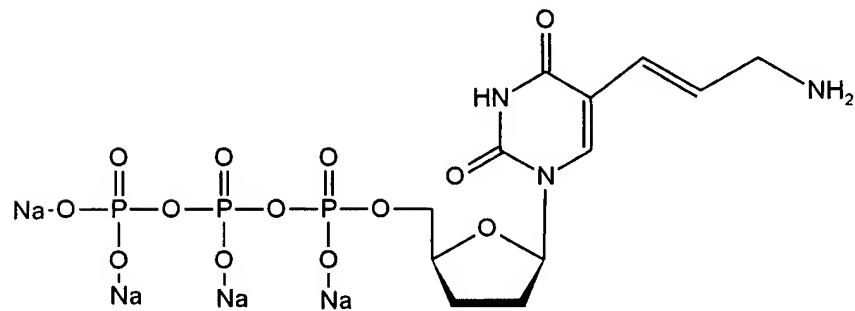
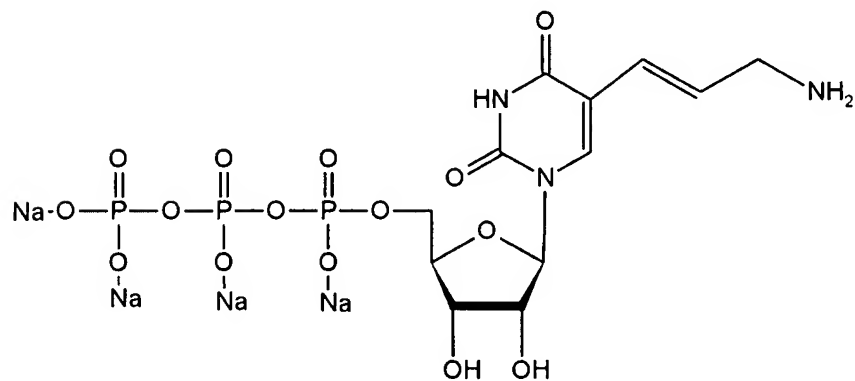
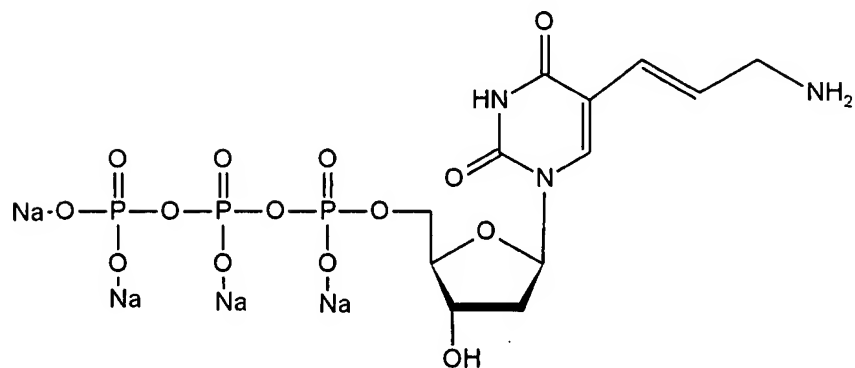


Fig. 12

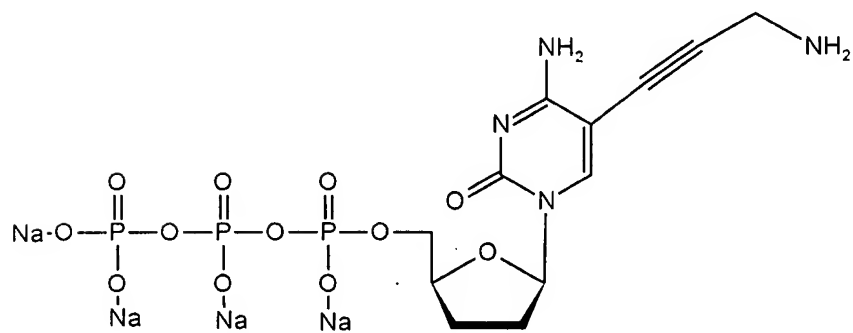
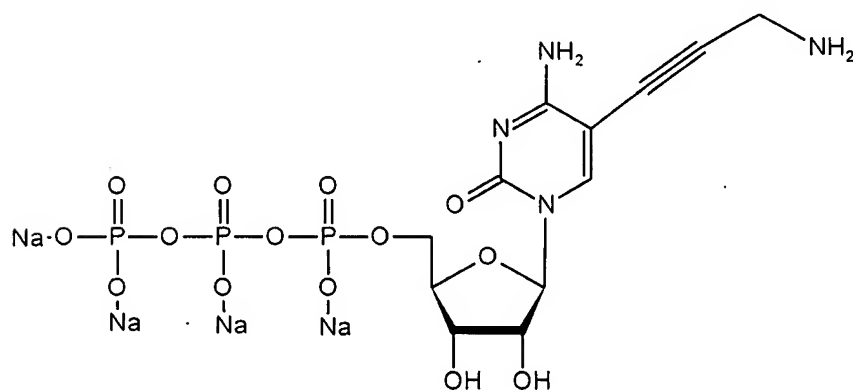
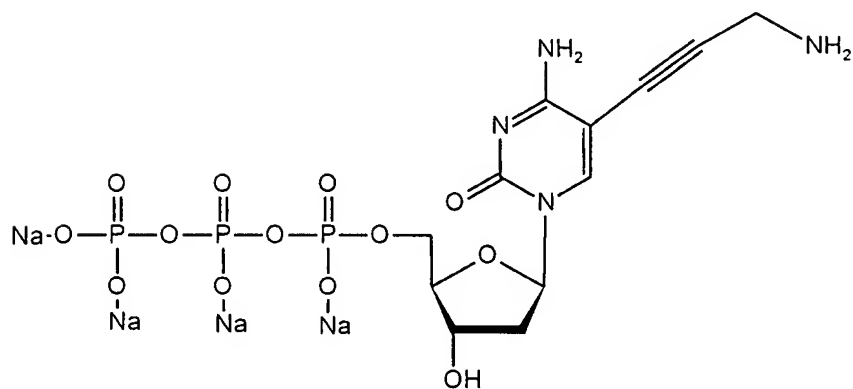


Fig. 13

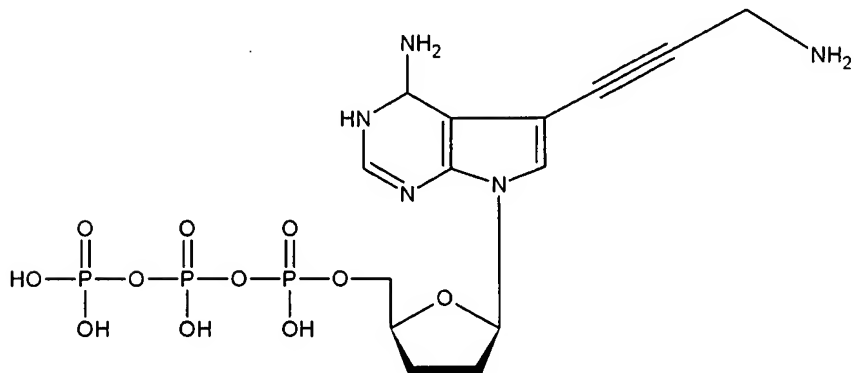
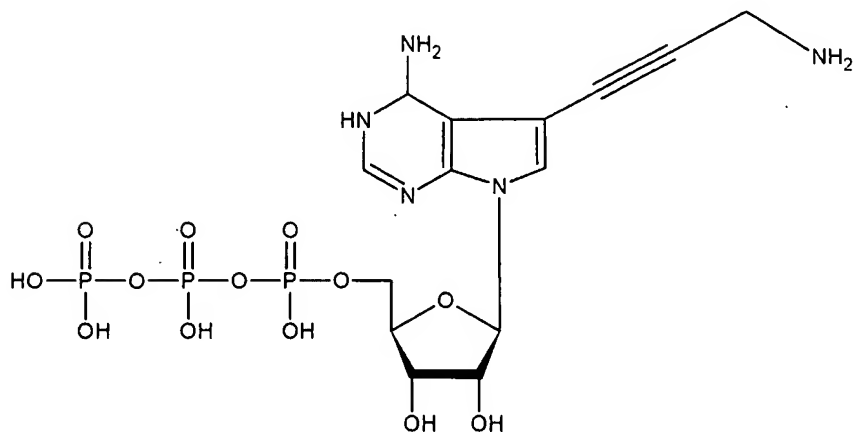
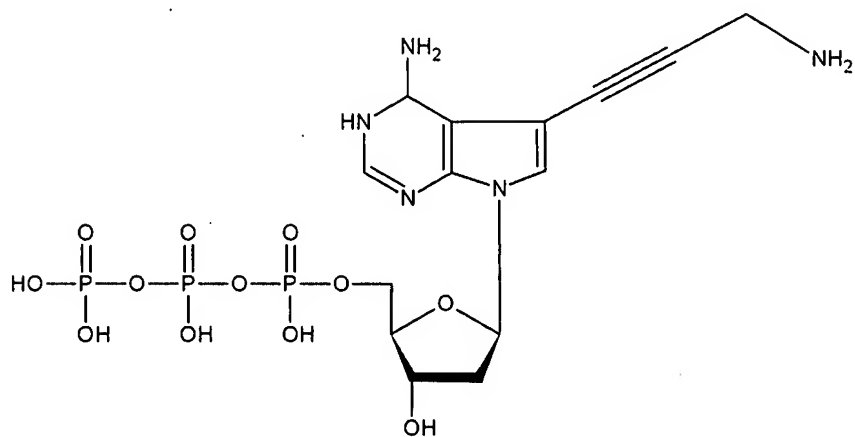


Fig. 14

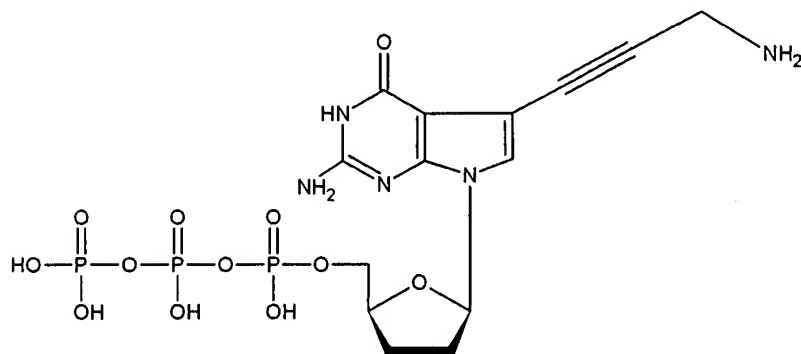
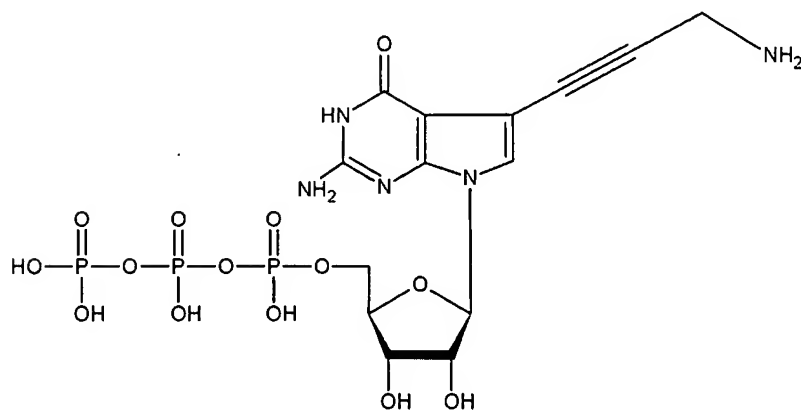
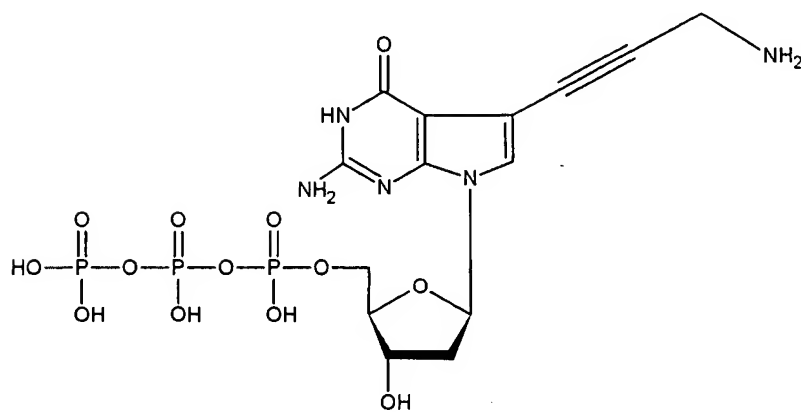


Fig. 15

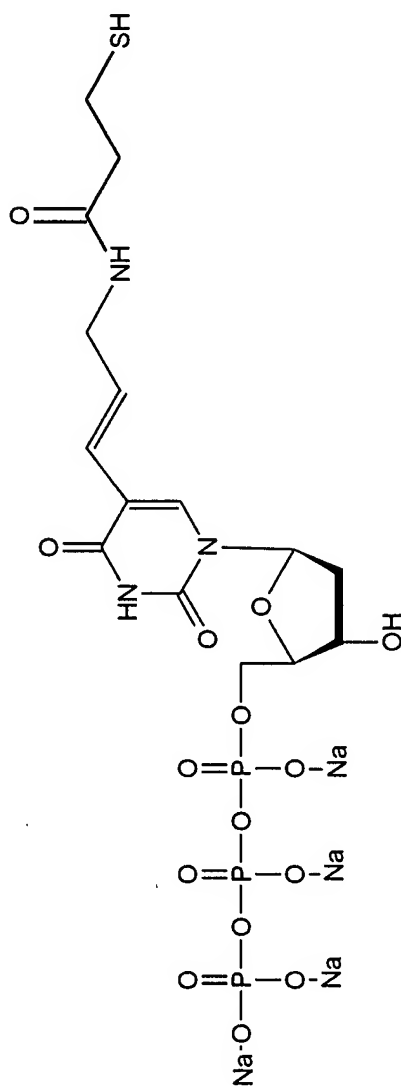


Fig. 16

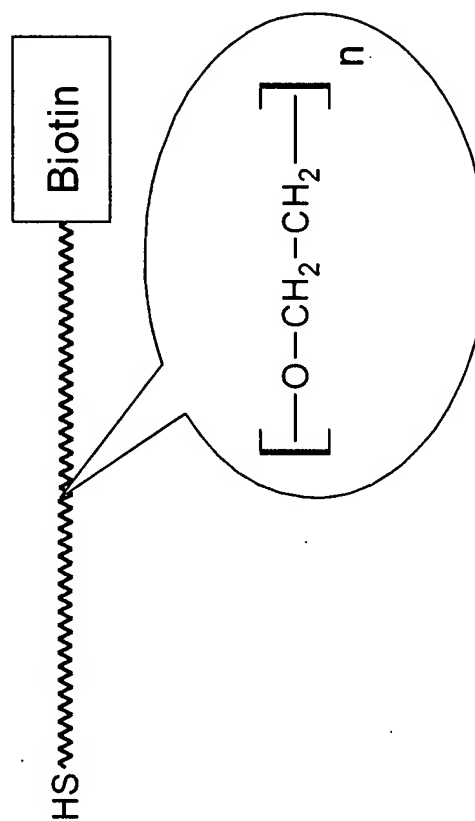


Fig. 17

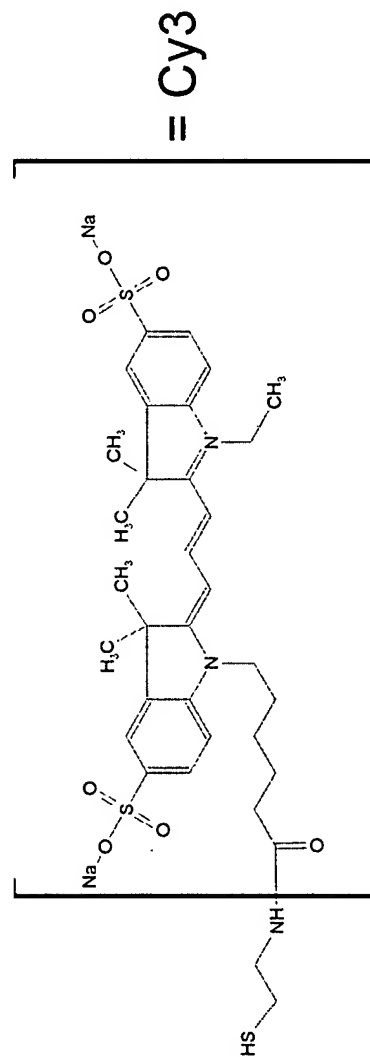


Fig. 18

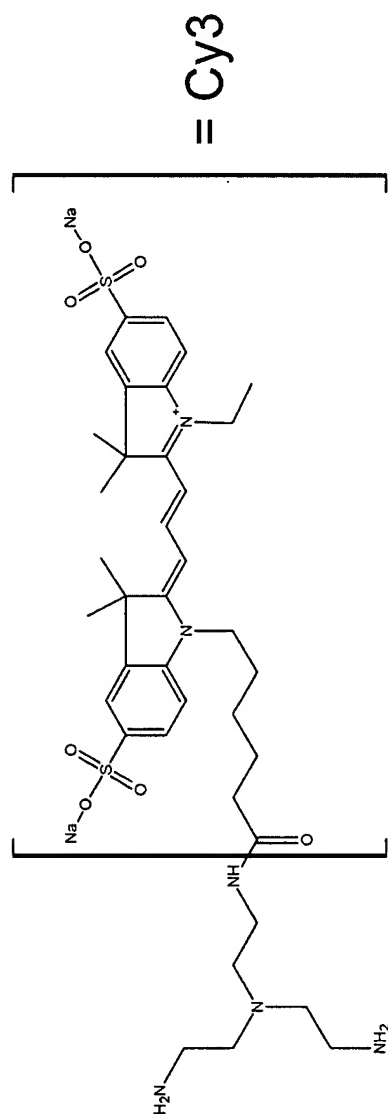


Fig. 19

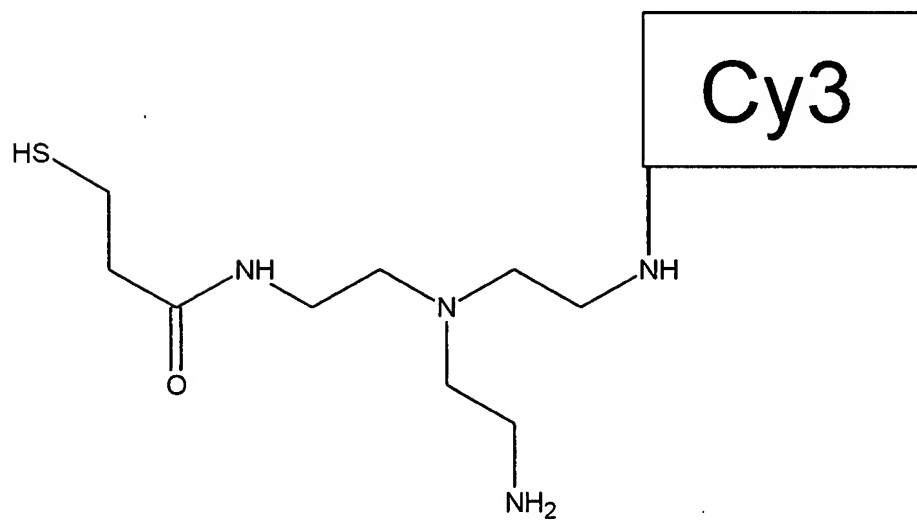


Fig. 20

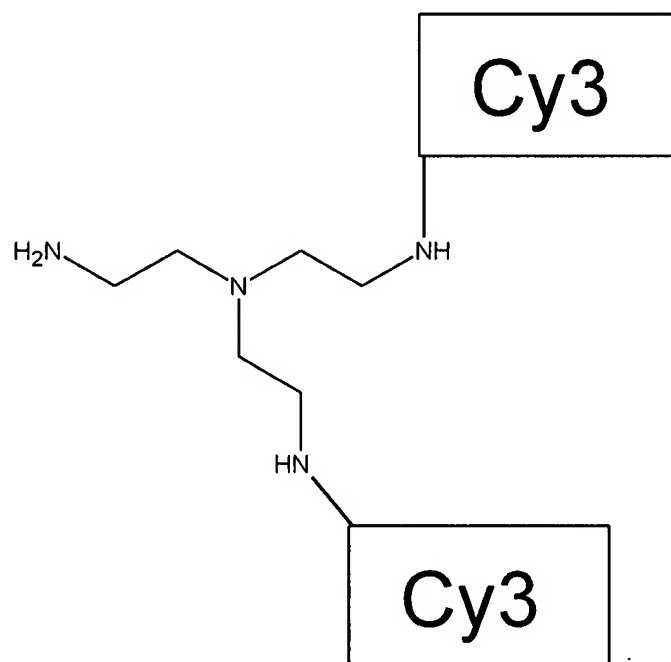


Fig. 21

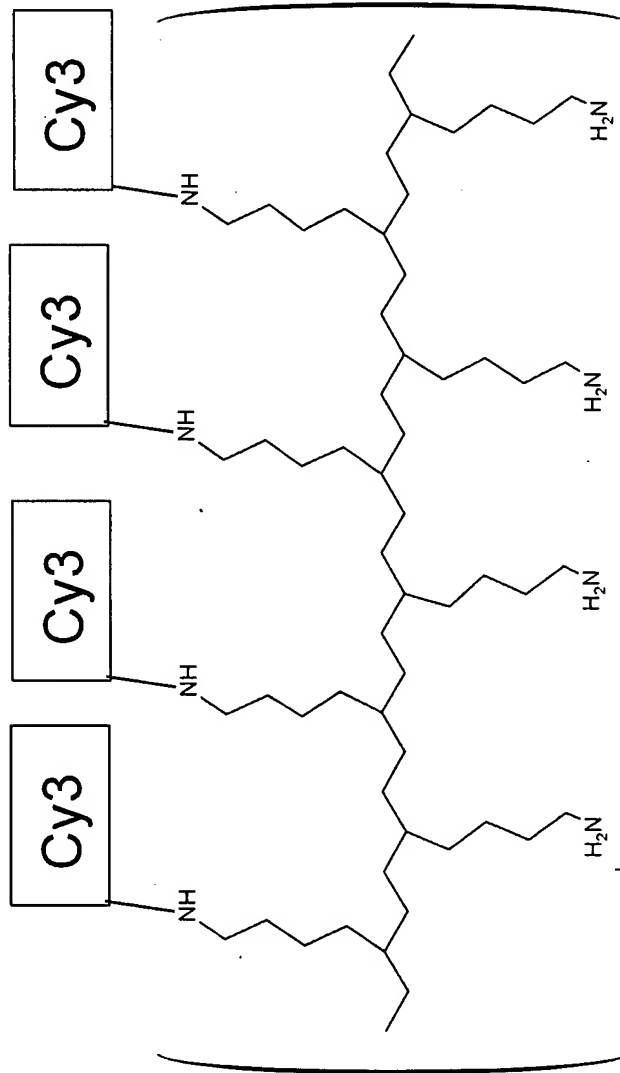


Fig. 22

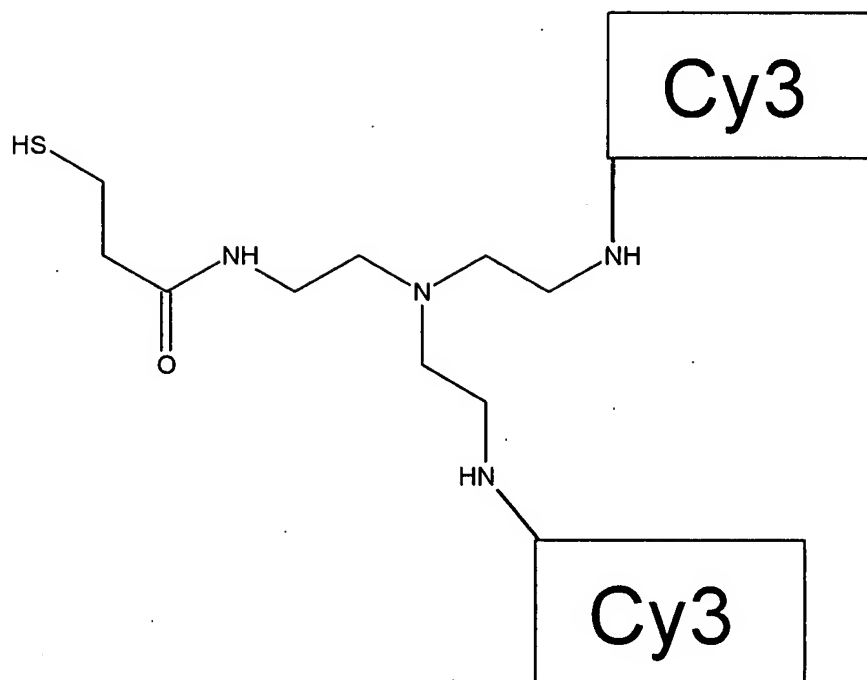


Fig. 23

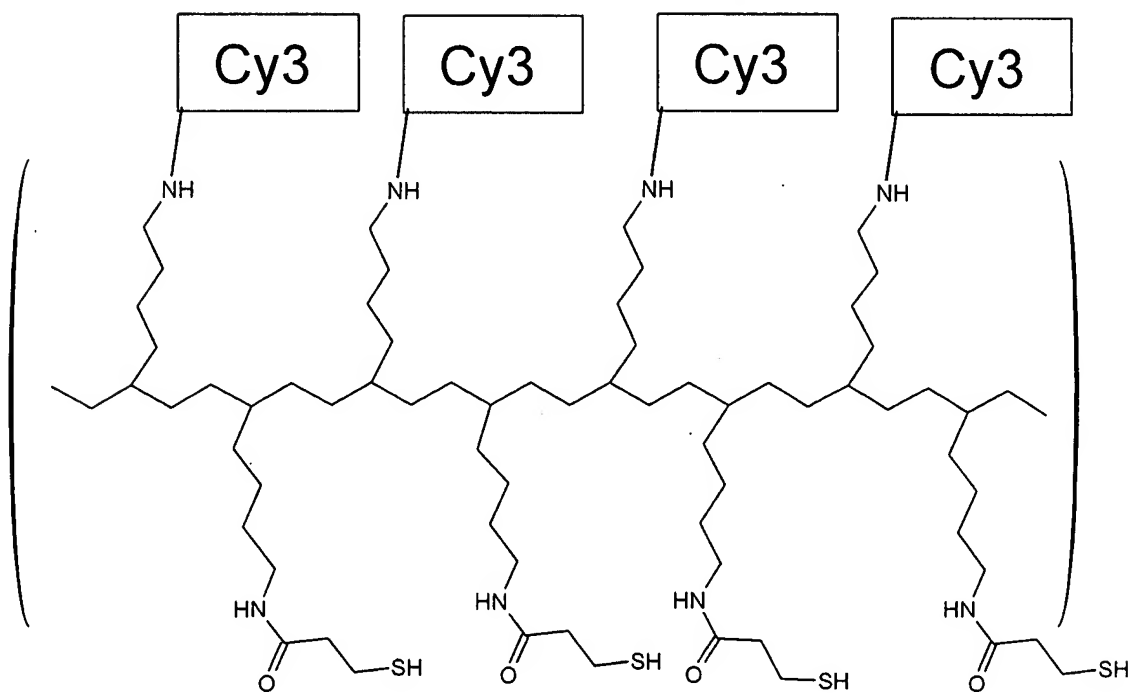
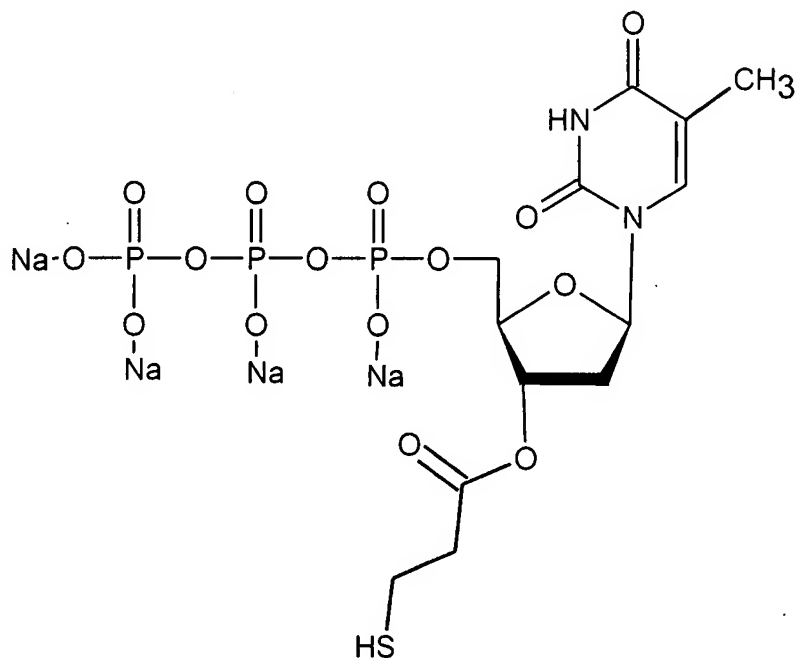


Fig. 24

A)



B)

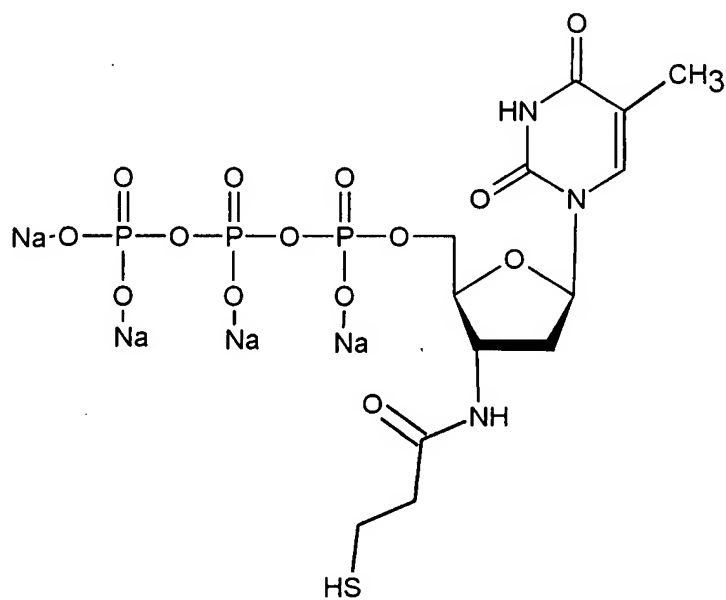


Fig. 25

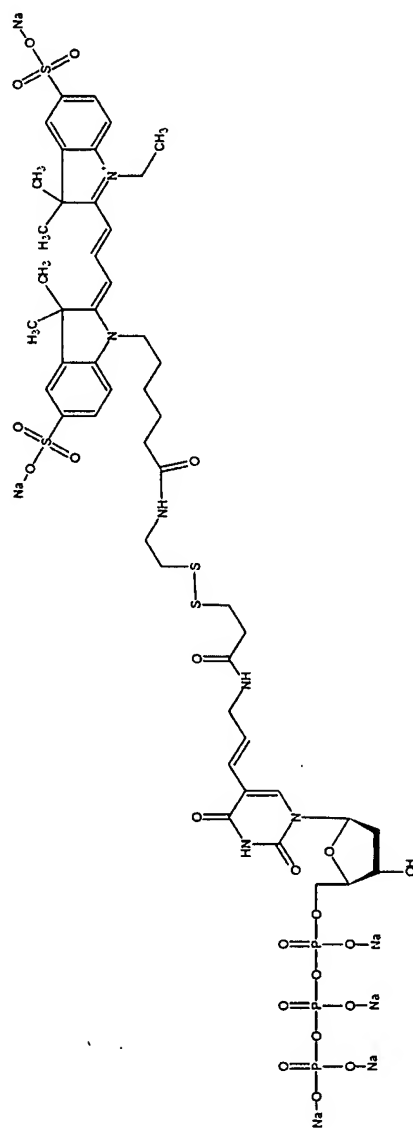


Fig. 26

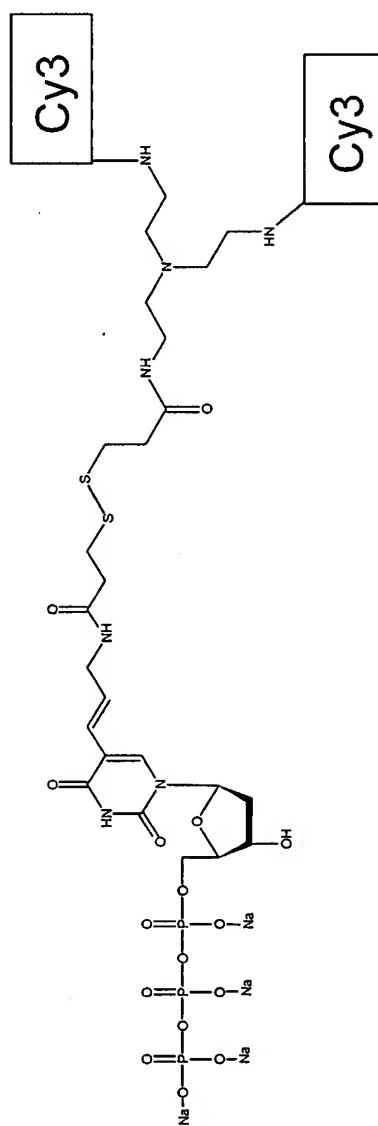


Fig. 27

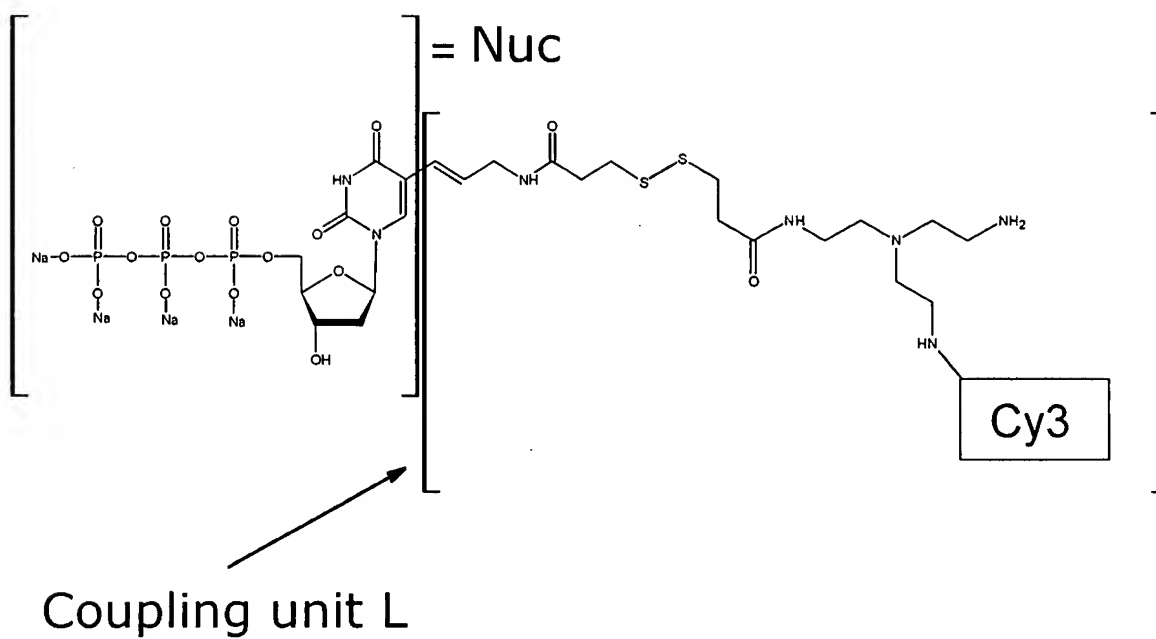
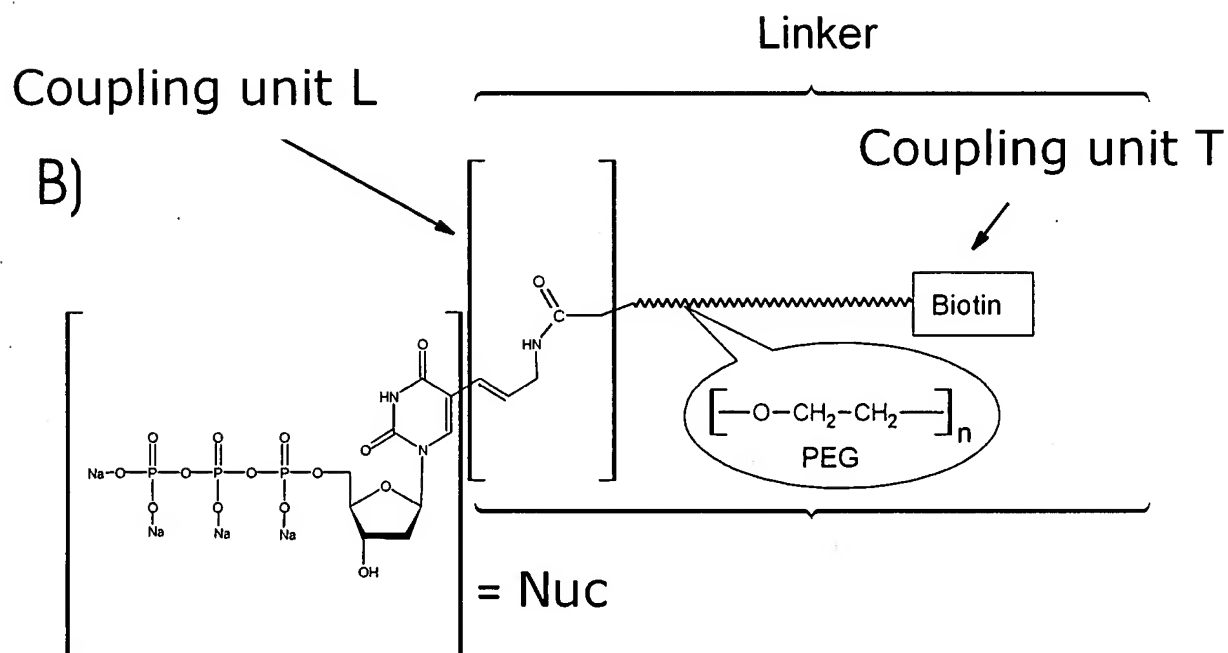
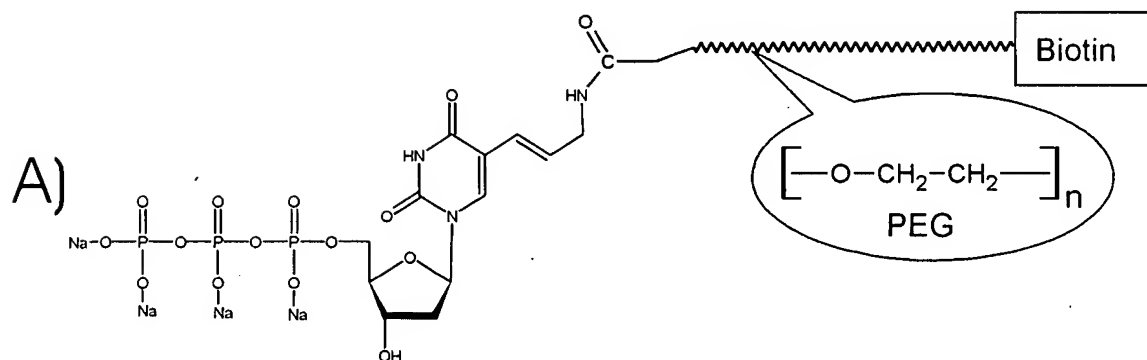


Fig. 28



Legend:

- A) Chemical structure of the nuc-linker-component
- B) Schematic appointment of individual components

Fig. 29

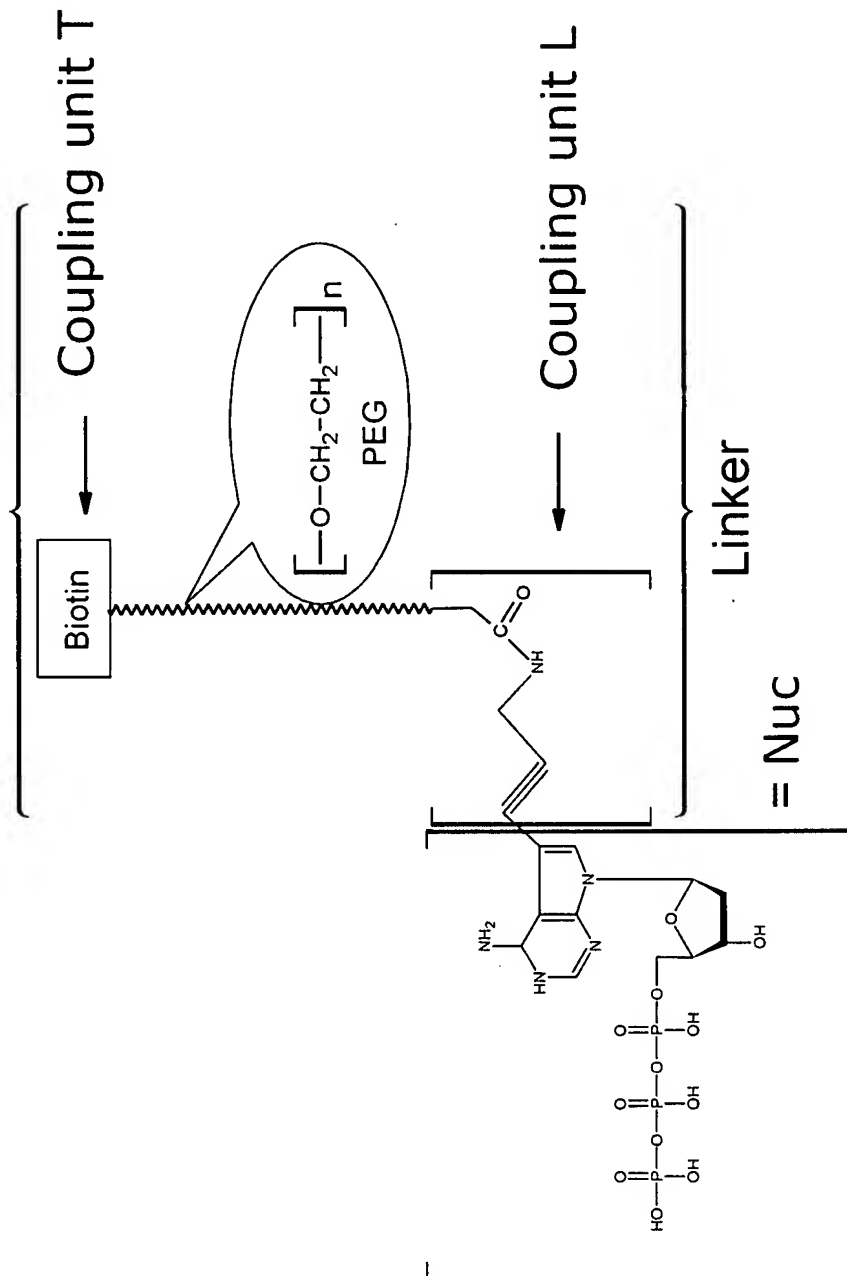


Fig. 30

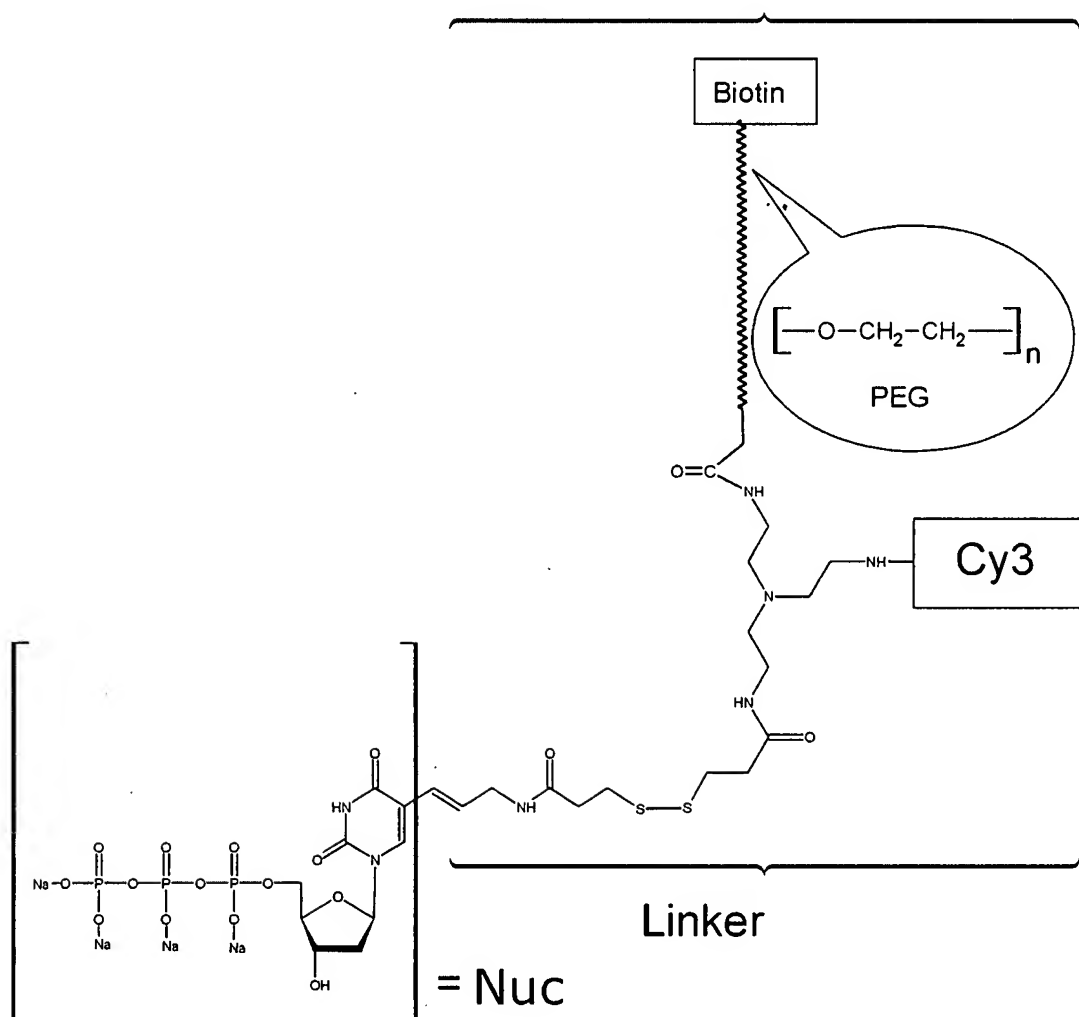


Fig. 31 A

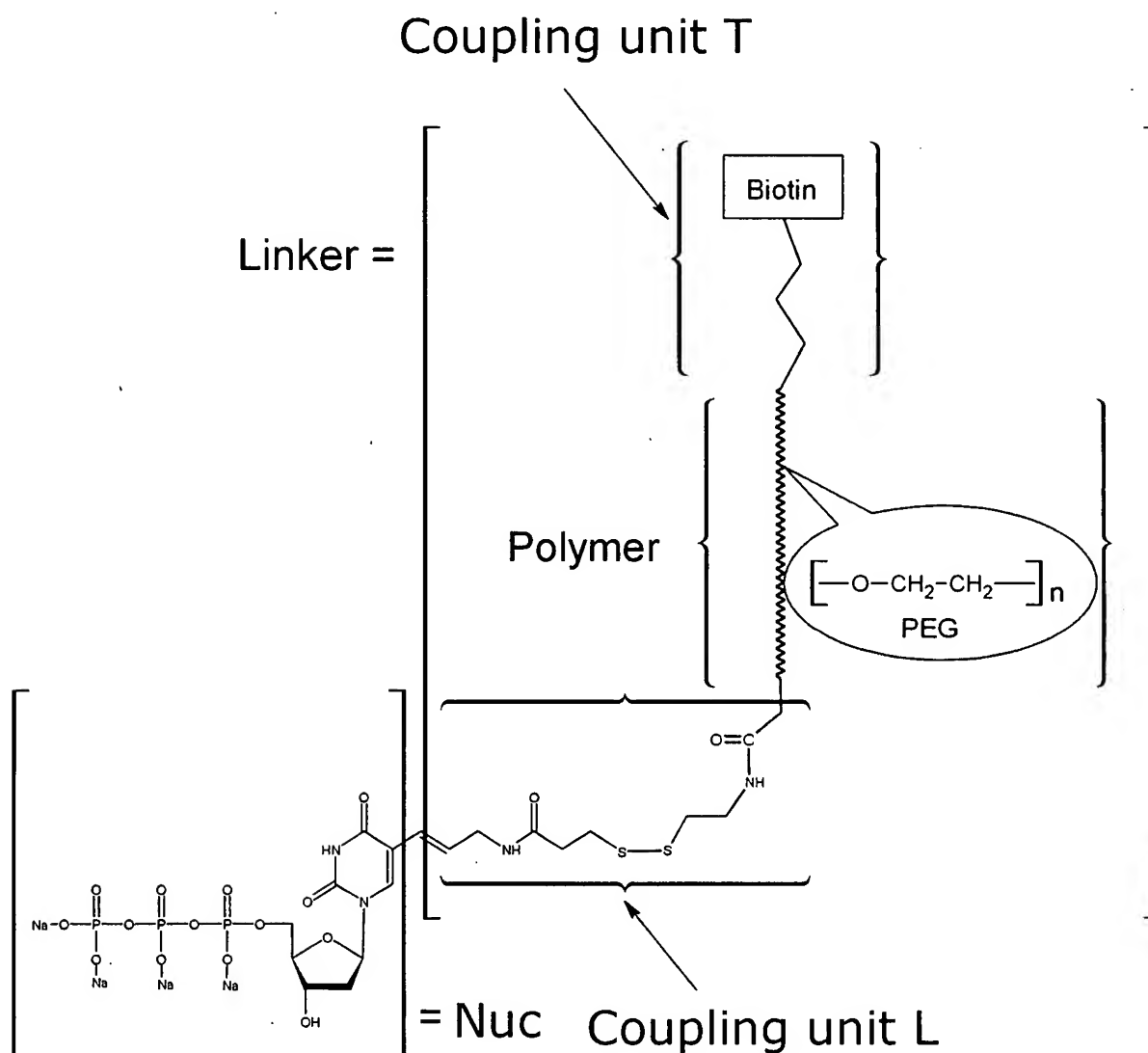


Fig. 31 B

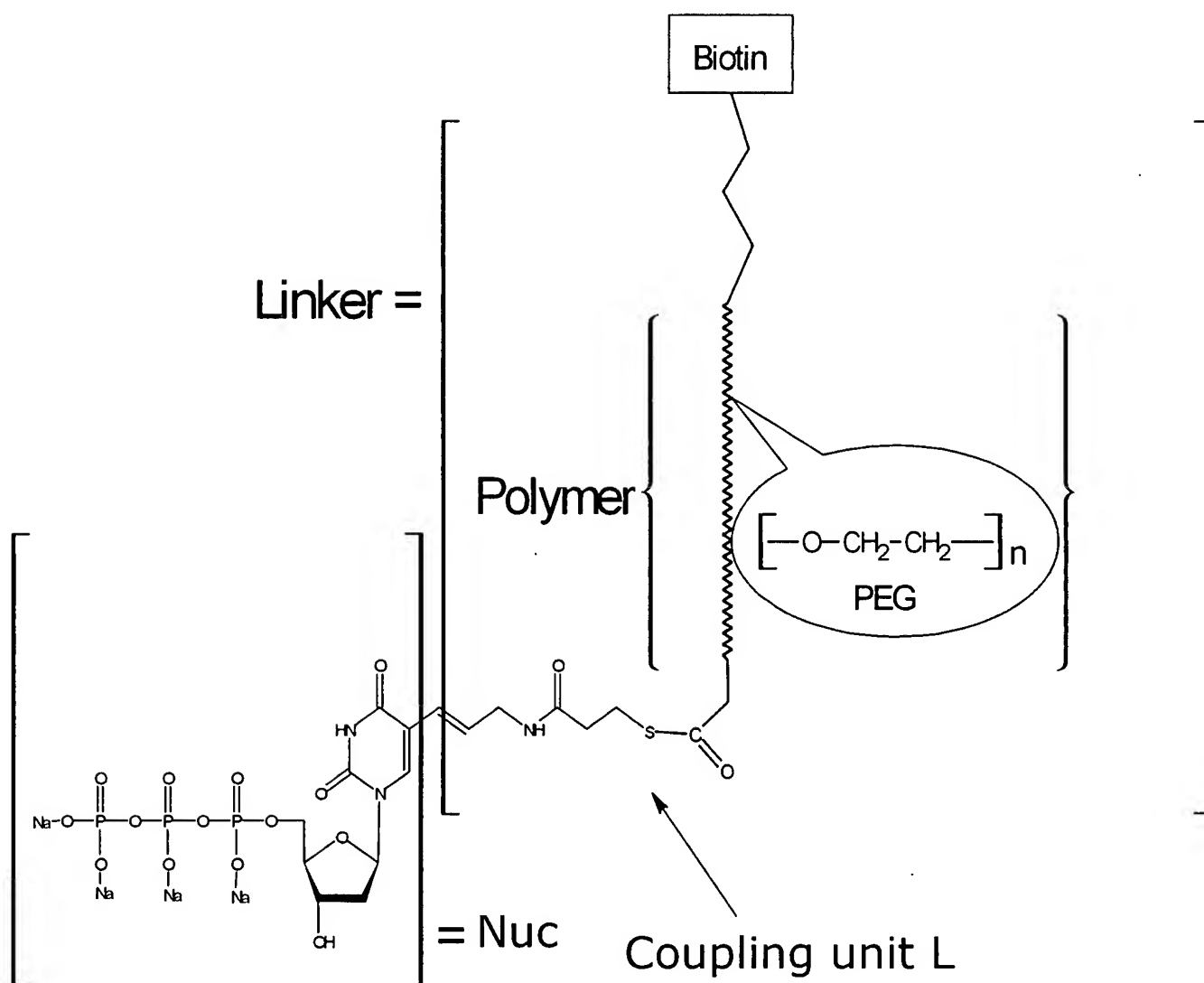


Fig. 32

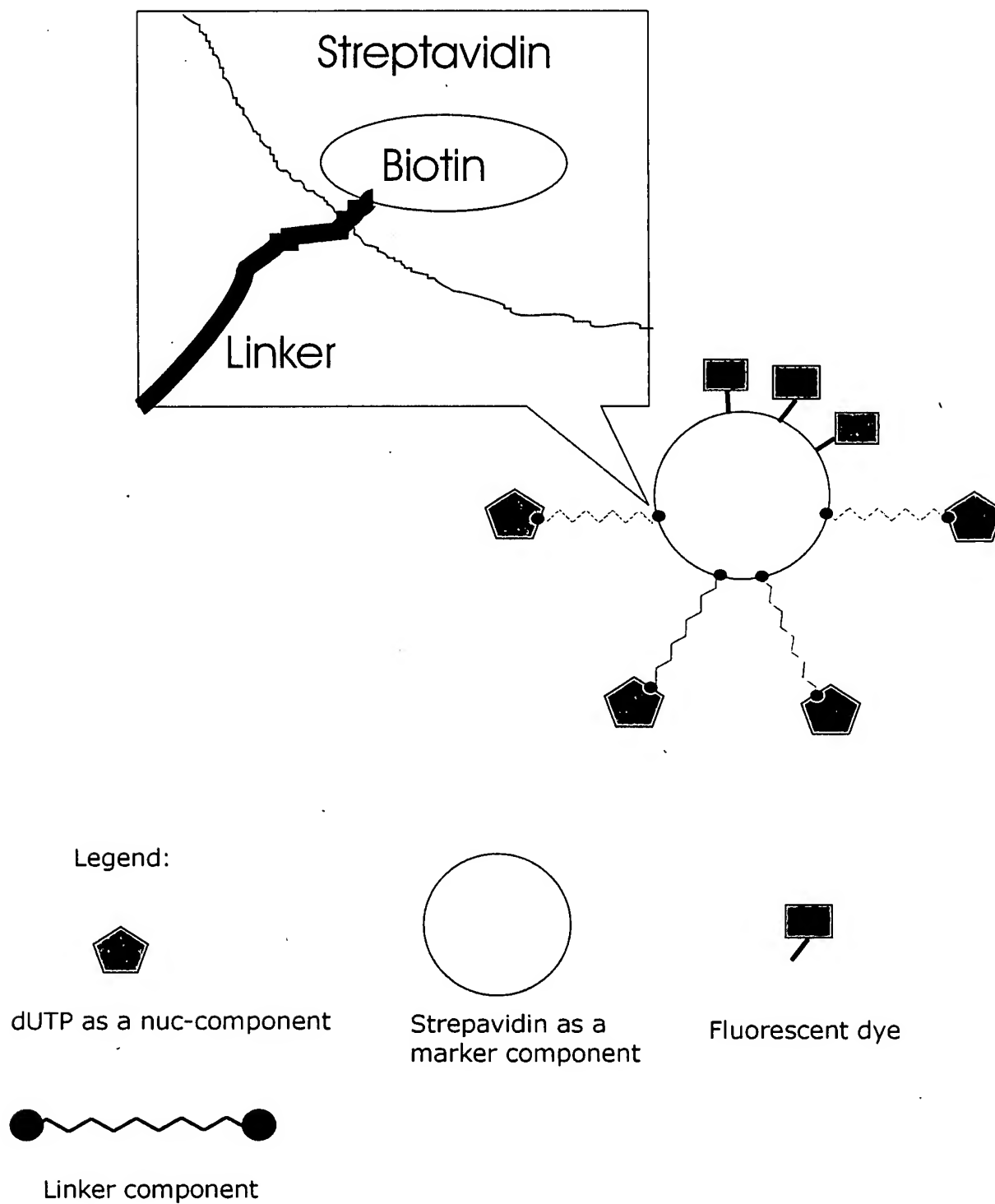
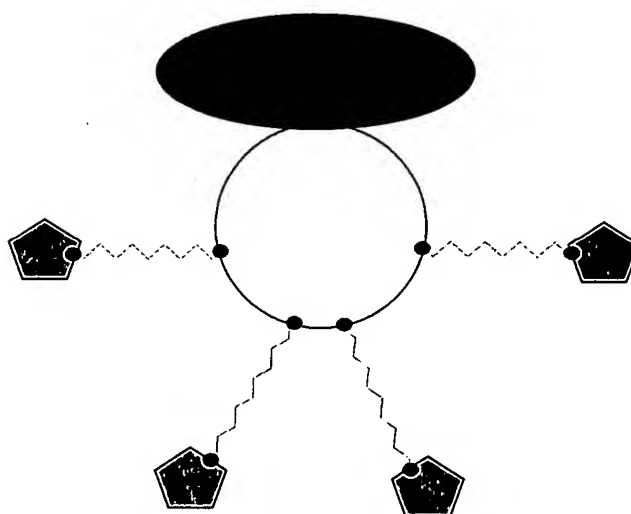


Fig. 33



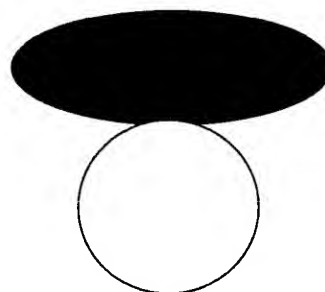
Legend:



dUTP as a nuc-component

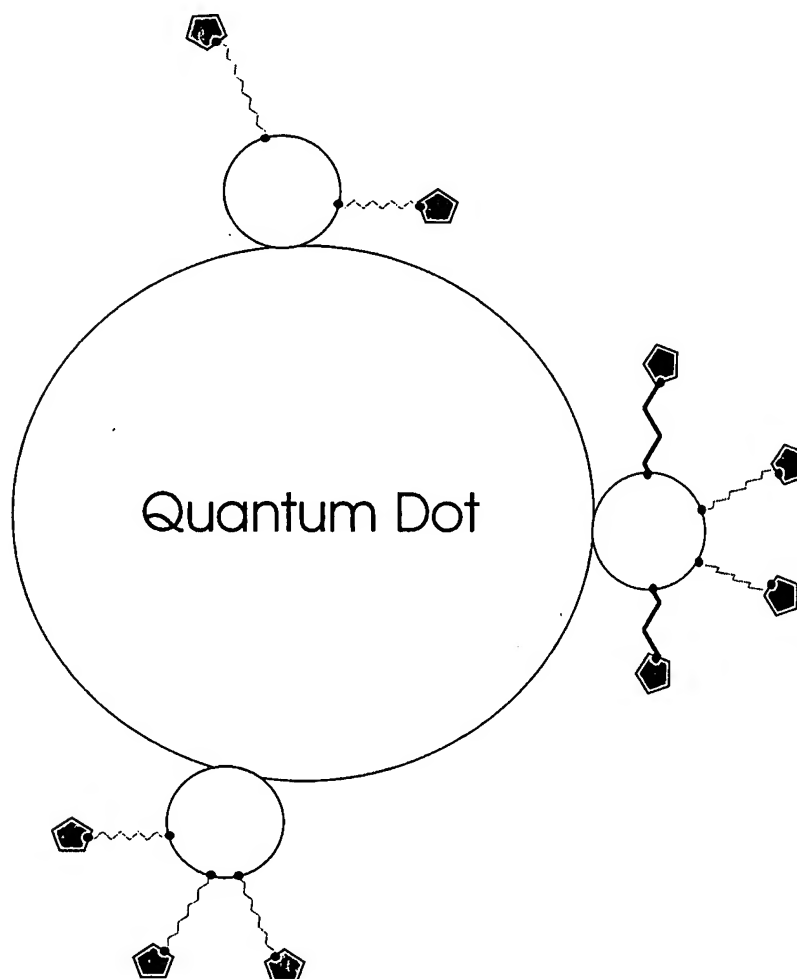


Linker component



Streptavidin-enzyme conjugate
as a marker component

Fig. 34



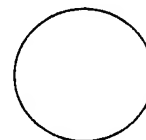
Legend:



dUTP as a nuc-component

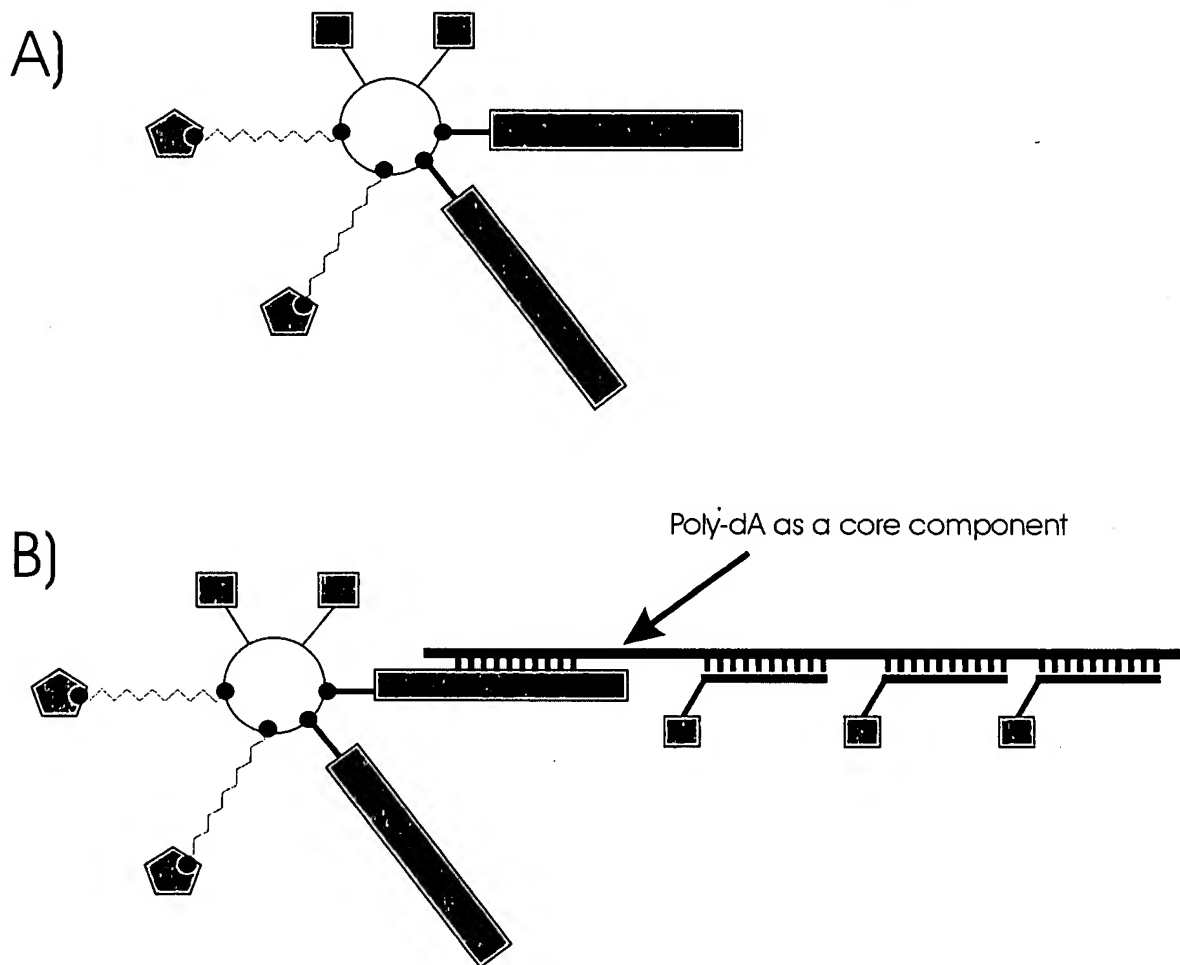


Linker component



Streptavidin attached to
Quantum Dot

Fig. 35



Legend:



dUTP as a nuc-component



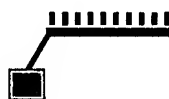
Streptavidin-oligonucleotide
as a marker component



Fluorescent dye

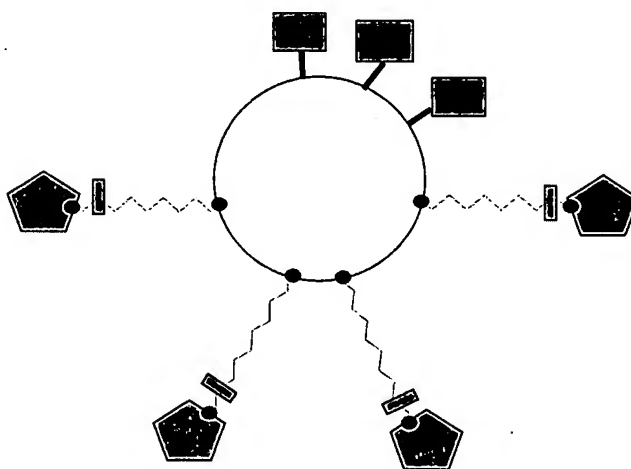


Linker component



Labeled oligonucleotide
as a marker unit

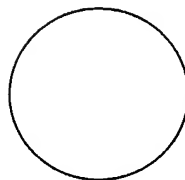
Fig. 36



Legend:



dUTP as a nuc-component



Streptavidin as a
marker component

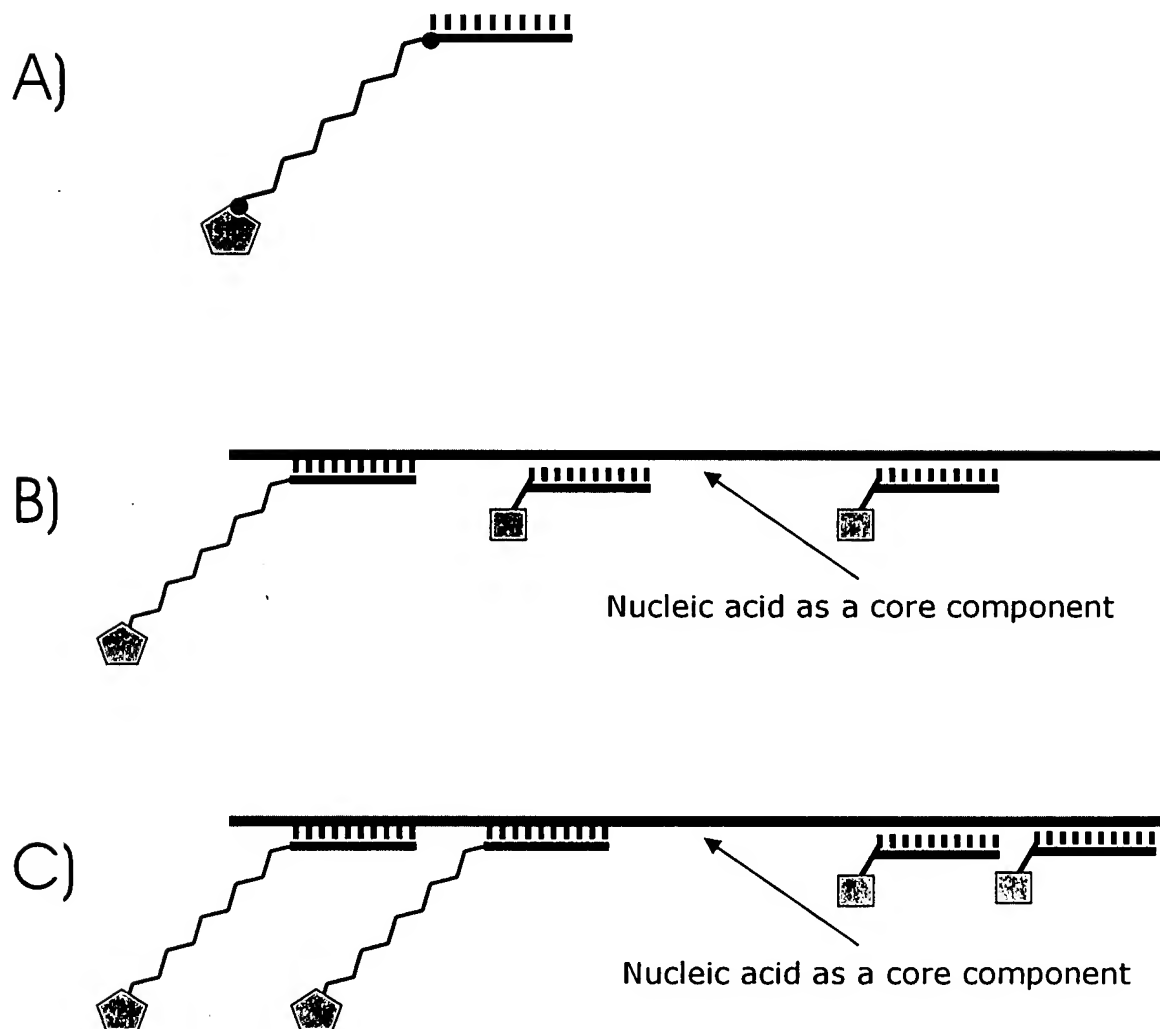


Fluorescent dye



Linker component with a
cleavable compound

Fig. 37



Legend:



dCTP as a nuc-component

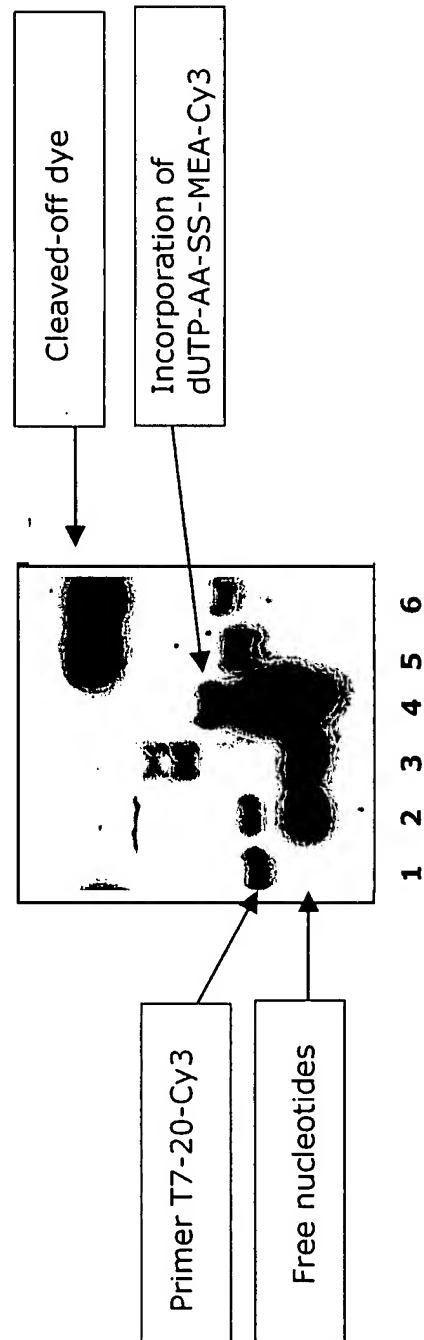


Oligonucleotide dT30



Linker component

Fig. 38



Title: MACROMOLECULAR NUCLEOTIDE COMPOUNDS AND METHODS FOR USING THE SAME

Application No.: 10/578,313

Atty. Docket No.: 076030-0011

Inventor: Dmitry CHERKASOV et al.

Fig. 39

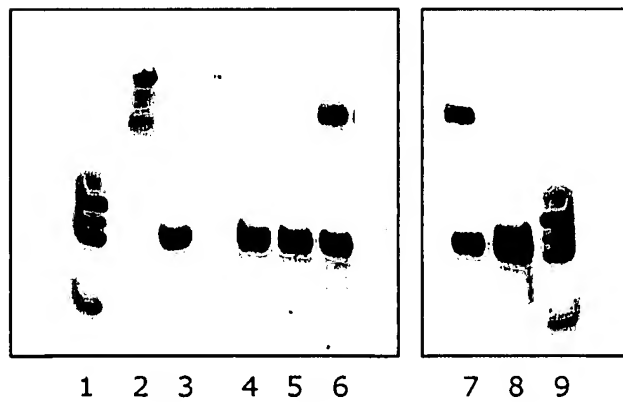
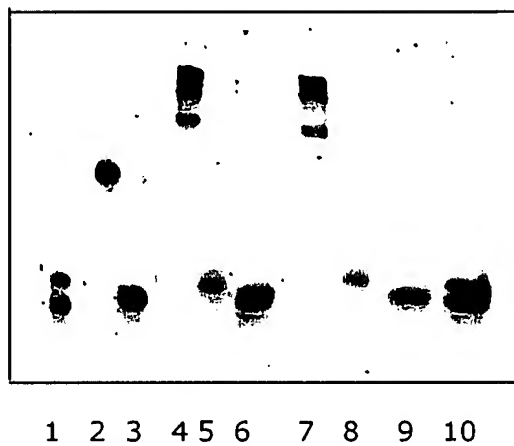


Fig. 40



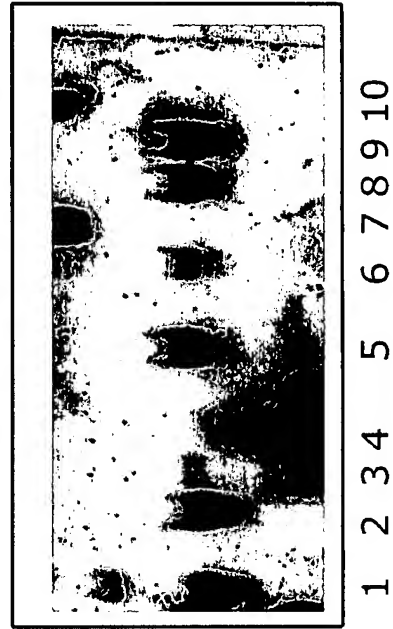
Title: MACROMOLECULAR NUCLEOTIDE COMPOUNDS AND METHODS FOR USING THE SAME

Application No.: 10/578,313

Atty. Docket No.: 076030-0011

Inventor: Dmitry CHERKASOV et al.

Fig. 41



Marker

Linker =

Polymer

Cy3

PEG

$[-O-CH_2-CH_2-]_n$

Nuc

Coupling unit L

Fig. 42 B

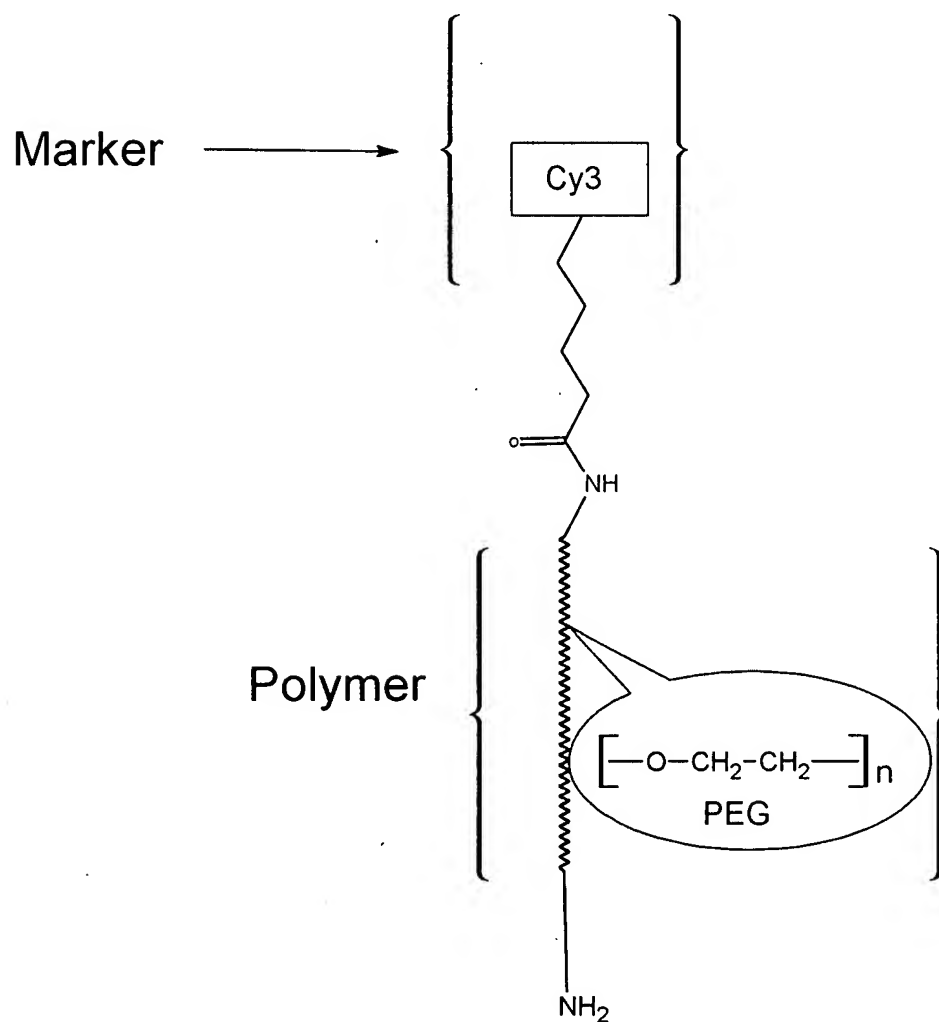


Fig. 43

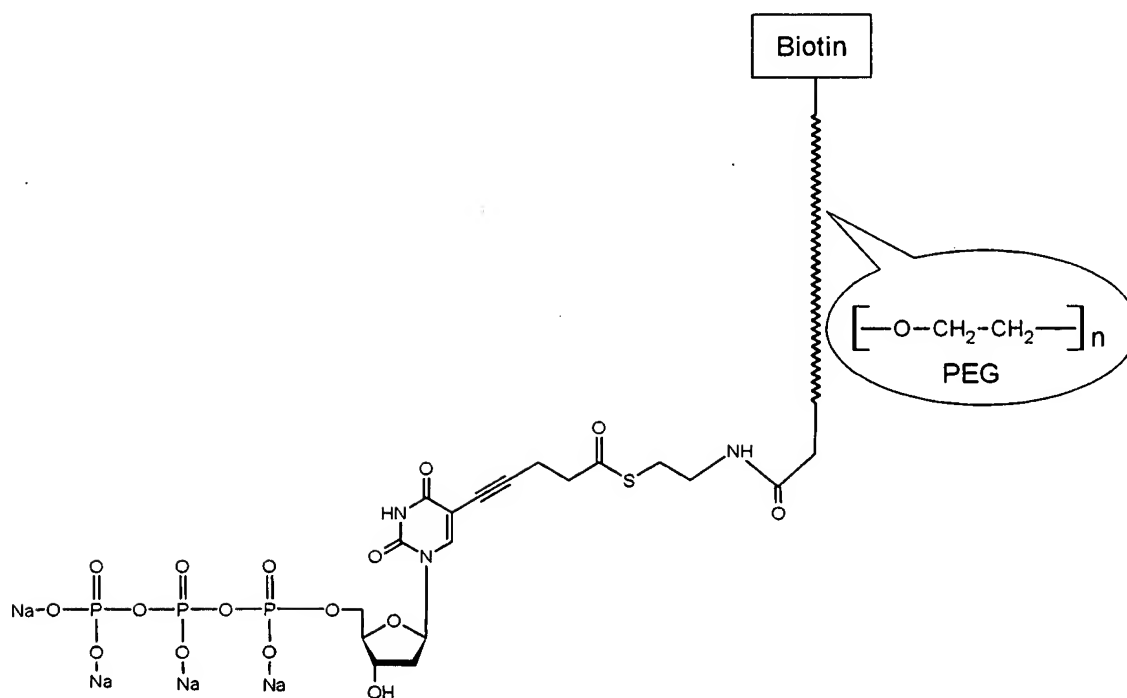


Fig. 44

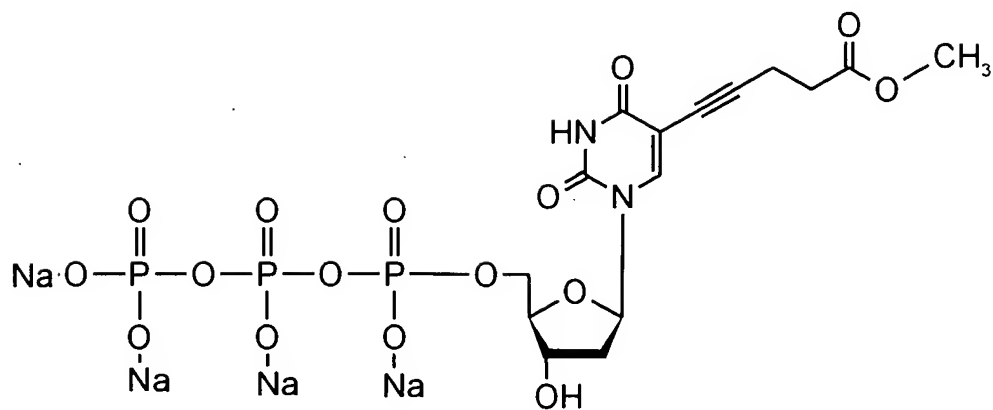


Fig. 45

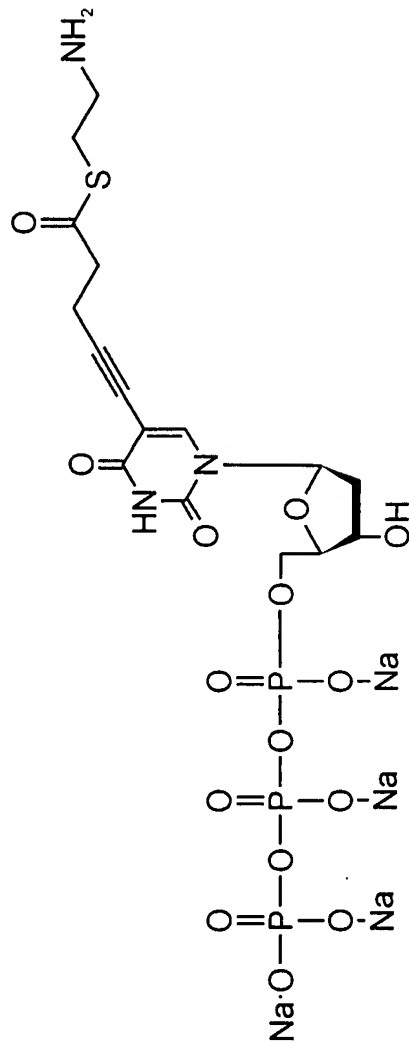


Fig. 46

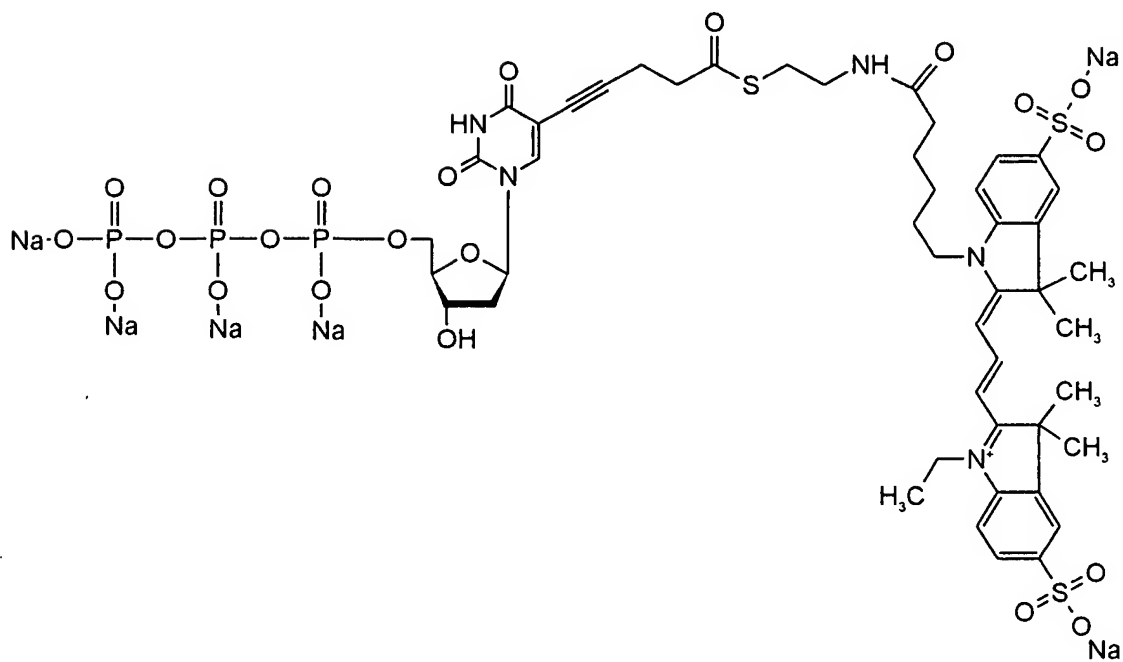


Fig. 47

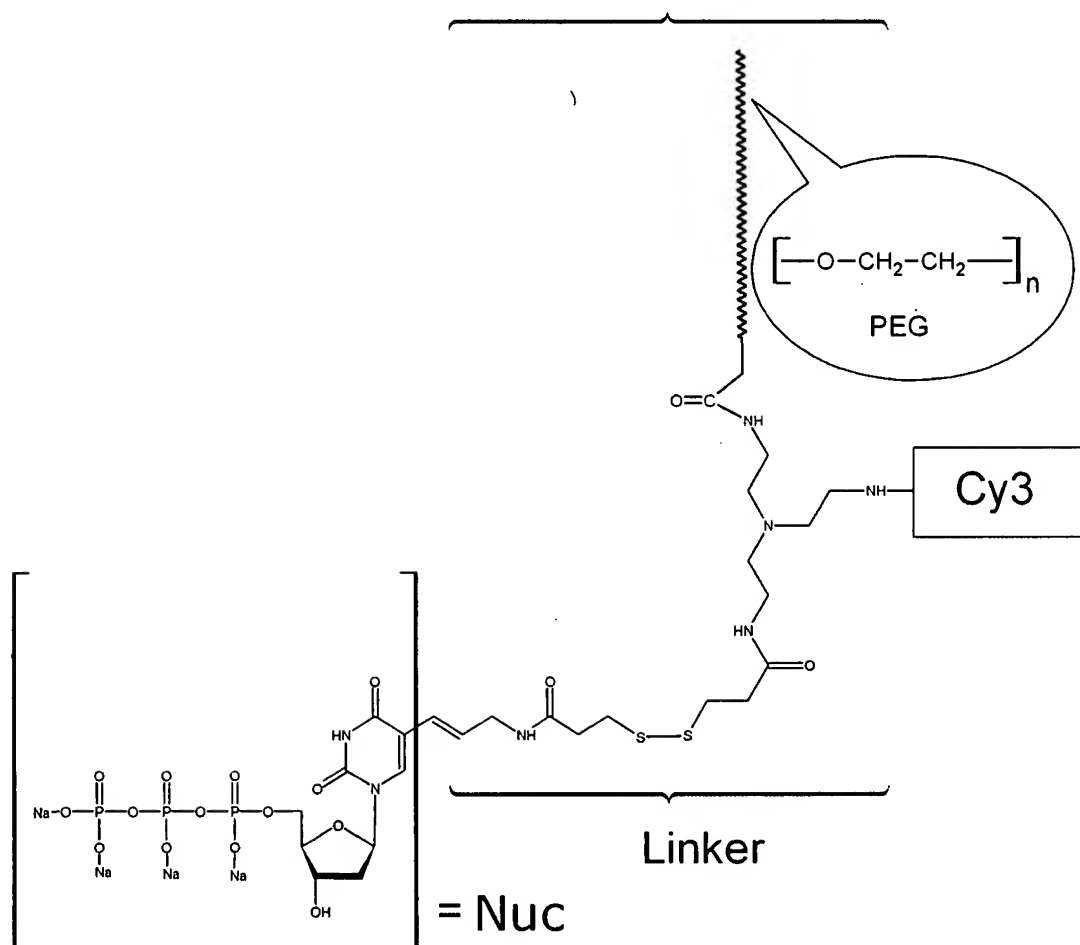


Fig. 48

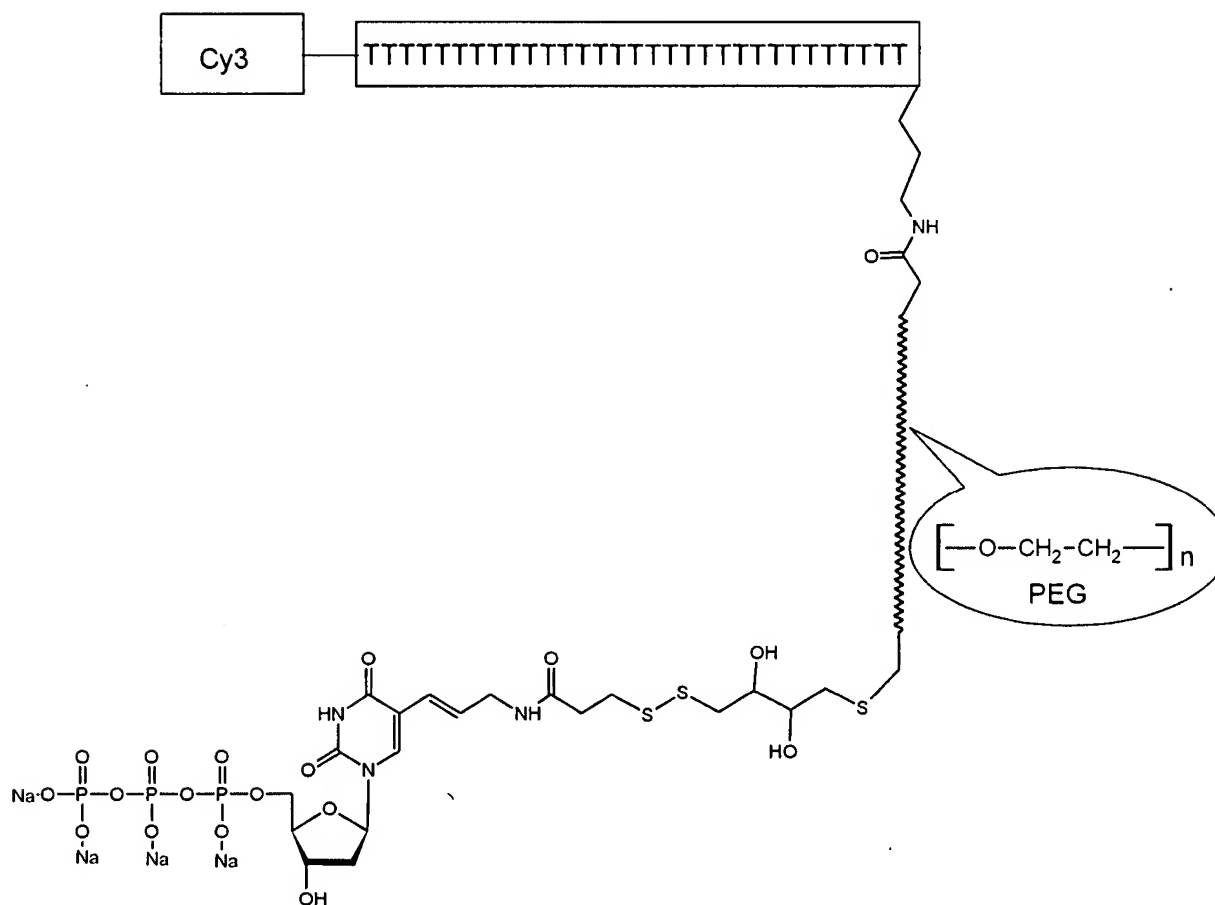


Fig. 49

